

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

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Bonnie Bieber DuPont Crop Protection Stine-Haskell Research Center P.O. Box 30 Newark, DE 19714

NOV 0 8 2011

Dear Ms. Bieber:

Subject:

Labeling amendment to add pests and to change minimum aerial spray volume

**DuPont Prevathon Insect Control** 

EPA Reg. No. 352-844 Decision #: 457010

Submission dated October 18, 2011

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 Dr. Jennifer Urbanski at 703-347-0156 or urbanski.jennifer@epa,gov.

Sincerely yours,

Venus Eagle

Product Manager (01)

Insecticide-Rodenticide Branch Registration Division (7505P)

Enclosure- Stamped Label



GROUP

# **DuPont<sup>™</sup> Prevathon<sup>™</sup>**

# insect control

# with the active ingredient RYNAXYPYR®

PREVATHON™ is a suspension concentrate. Contains 0.43 lb. active ingredient per gallon.

28

INSECTICIDE

Active Ingredient	By Weigh
Chlorantraniliprole	
3-Bromo-N-[4-chloro-2-methyl-6-	
[(methylamino)carbonyl]phenyl]-1-	
(3-chloro-2-pyridinyl)-1H-pyrazole-	
5-carboxamide	5%
Other Ingredients	95%
TOTAL	100%
EPA Reg. No. 352-844 EPA Est. No.	
Nonrefillable Container	
Net:	
OR	
Refillable Container	
Net:	
E. I. du Pont de Nemours and Company 1007 Market Street	
Wilmington, Delaware 19898	

ACCEPTED NOV 0 8 2011

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

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under:

		41	352-844
EPA.	Reg.	NO: -	

# 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

- Do not treat plants grown for transplanting. Not for use in nurseries, plant propagation houses, or greenhouses by commercial transplant producers on plants being grown for transplanting.
- · Use this product only in commercial and farm 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.
- · Not for use in home plantings.
- Do not apply DuPont<sup>™</sup> PREVATHON<sup>™</sup> through any irrigation system unless specified in this label or in supplemental labeling.

For New York State Only:

The following restrictions are required to permit use of PREVATHON™ 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

PREVATHON™ 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

PREVATHON™ 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 non-specified use.

PREVATHON™ is a suspension concentrate that can be applied as a foliar application to control listed insects. PREVATHON™ is mixed with water for application.

PREVATHON™ is a member of the anthranilic diamide class of insecticides with a novel mode of action acting on insect ryanodine receptors. Although PREVATHON™ has contact activity, it is most effective through ingestion of treated plant material. After exposure to PREVATHON™, 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.

#### 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 PREVATHON<sup>TM</sup> based on locally determined economic thresholds. More than one treatment of PREVATHON<sup>TM</sup> may be required to control a population of pests.

#### RESISTANCE MANAGEMENT

For resistance management, PREVATHON<sup>TM</sup> is a Group 28 Insecticide. Repeated and exclusive use of PREVATHON<sup>TM</sup> (chlorantraniliprole) or other Group 28 insecticide balanging to the anthanilic diamide class of chamistry 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 a resistance management strategy 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 the most susceptible life stage. Consult your local or state agricultural authorities for details.

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

- Avoid using the same mode of action (same insecticide group) on consecutive generations of insect pests.
- Apply DuPont<sup>™</sup> PREVATHON<sup>™</sup> or other Group 28 insecticides using a "treatment window" approach to avoid exposure of successive insect pest generations to the same mode of action.
- A "treatment window" is defined as the period of residual activity provided by single or sequential applications of products with the same mode of action. This "treatment window" should not exceed approximately the length of one generation of the target pest.
- Within the "Group 28 treatment window", make no more than 2 applications of PREVATHON™ or other Group 28 insecticides within a single generation of the target pest on a crop or within a 30 day period to the same insect species on a crop.
- Following a "Group 28 treatment window", rotate to a treatment window of effective products with a different mode of action. This "Non-Group 28 Window" should approximate the duration of one generation of the target pest.
- Target the most susceptible insect life stages, whenever possible.

If resistance to PREVATHON™ develops in your area, PREVATHON™ 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 DuPont Crop Protection 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 PREVATHON<sup>TM</sup>, as specified, to keep pest populations within threshold limits. Refer to the Resistance Management section of this label for further guidance on follow-up treatments. See individual crop sections of this label for specific minimum spray intervals.

Use sufficient water to obtain thorough, uniform coverage. Because PREVATHON™ 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.

PREVATHON™ may be applied by ground or aerial application equipment. PREVATHON™ may be applied via overhead sprinkler chemigation systems except on Tree Nuts. See "CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS" section for instructions on overhead sprinkler chemigation. For aerial application use the following direc-

tions unless otherwise specified in specific crop/pest sections of this label: use a minimum of 2 gallons per acre (gpa) of water. For all other application methods use the following directions, unless otherwise specified in specific crop/pest sections of this label: use a minimum of 10 gal per acre (GPA) of water for all crops.

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 an 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; Banana/Plantain; Brassica (Cole) Leafy Vegetables (Crop Group 5); Cacao; Caneberry subgroup (Berry and Small Fruit Crop Group subgroup 13-07A); Citrus (Crop Group 10); Coffee; Cucurbit Vegetables (Crop Group 9); Figs; Forage, Fodder, and Straw of Cereal Grains (Crop Group 16); Fruiting Vegetables (Crop Group 8); Herbs subgroup (Crop Group subgroup 19A); Grape; Hops; Leafy Vegetables (nonbrassica, Crop Group 4); Legume Vegetables except soybean (Crop Group 6); Okra; Olives; Persimmons; Pome Fruits (Crop Group 11); Pineapple; Pomegranates; Prickly Pear Cactus; Rice; Root and Tuber Vegetables (Crop Group 1); Small Fruit Vine Climbing subgroup, except fuzzy kiwifruit (Berry and Small Fruit Crop Group subgroup 13-07F); Spice subgroup (Crop Group subgroup 19B); Spearmint and Peppermint; Stone Fruits (Crop Group12); Strawberries; Tree Nuts and Pistachio (Crop Group 14); Tops of Root and Tuber Vegetables (Crop Group 2); 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).

The following crops or crop groups may be planted 30 days following the last application of PREVATHON<sup>TM</sup>: garlic, greatheaded garlic, dry bulb onion, leek, green onion, Welsh onion, shallot, peanuts, soybeans, Cereal Grains (Crop Group 15).

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

# SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying PREVATHONTM. Fill spray tank 1/4 to 1/2 full of water. Add PREVATHONTM 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. Water dispersible granules.
- 3. Wettable powders.
- 4. DuPont<sup>™</sup> PREVATHON<sup>™</sup> and other water based suspension concentrates.
- 5. Water-soluble concentrates.
- 6. Oil based suspension concentrates.
- 7. Emulsifiable concentrates.
- 8. Adjuvants, surfactants, oils.
- 9. Soluble fertilizers.
- 10. Drift retardants.
- \* Unless otherwise specified by manufacturer directions for use or by local experience.

			DUPONT™ PR	EVATHON™ RATE		REI (Hours)
Crop	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	Last Application (Days to Harvest)	
Corn (field) Corn (pop)	FOLIAR	Corn earworm Beet armyworm European corn borer Fall armyworm Southwestern corn borer Western bean cutworm	0.047 - 0.067	14.0 - 20.0	14	4
	Minimum interval between	59.7 fl oz PREVATHON™ or 0	0.2 lbs a.i. of chlorantra	niliprole containing		
Corn (seed)	FOLIAR	Corn earworm Beet armyworm European corn borer Fall armyworm Southwestern corn borer Western bean cutworm	0.047 - 0.067	14.0 - 20.0	1	4
	Minimum interval between	59.7 fl oz PREVATHON™ or 0	0.2 lbs a.i. of chlorantra	niliprole containing		
Cotton	FOLIAR	Beet armyworm Cotton bollworm** Fall armyworm Saltmarsh caterpillar Southern armyworm Tobacco budworm** Western Yellowstriped Armyworm	0.047 - 0.09	14.0 - 27.0	21	4
		Cabbage looper Sovbean looper*	0.067 - 0.097	20.0 - 29.0		
	Do not apply more than products per acre per cro The minimum interval be Do not use an adjuvant v *Suppression only. **For Heliothine control of 0.067 - 0.09 lb. ai p	plications per acre per crop. 59.7 fl oz PREVATHON™ or Cop. etween treatments is 5 days. with applications of PREVATHO  (cotton bollworm and/or tobac er acre (20.0 - 27.0 oz product). (14.0 - 27.0 oz product) depend	ONTM.  co budworm) make the Subsequent application	first application at rates		

			DUPONT™ PR	EVATHON™ RATE	Last Application (Days to Harvest)	REI (Hours)
Crop	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre		
Grass forage, fodder and hay: Any grass,	FOLIAR	Beet armyworm Corn earworm Fall armyworm Southern armyworm	0.047 - 0.067	14.0 - 20.0	0	4
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	USE RESTRICTIONS Make no more than 4 ap Minimum interval betwe Do not apply more than products per acre per cro	plications per acre per crop. een treatments is 7 days. 59.7 fl oz PREVATHON™ or pp.	0.2 lbs a.i. of chlorantra	niliprole containing		

			DUPONT <sup>TM</sup> PR	EVATHON™ RATE		
Crop	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	Last Application (Days to Harvest)	REI (Hours)
Legume vegetables, Dried shelled pea and bean	FOLIAR	Corn earworm Beet armyworm European corn borer Fall armyworm	0.047 - 0.067	14.0 - 20.0	1	4
(except soybean) sugroup; Dried cultivars of bean (Lupinus); bean (Phaseolus) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (Vigna) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lablab bean; lentil; pea (Pisum) (includes field pea); pigeon pea	Minimum interval betwee Do not apply more than a products per acre per cro	59.7 fl oz PREVATHÓN™ or p.				4
Foliage of Legume vegetables except soybean:	FOLIAR	Corn earworm Beet armyworm European corn borer Fall armyworm	0.047 - 0.067	14.0 - 20.0		4
Plant parts of any legume vegetable included in the legume vegetables that will be used as animal feed.	Minimum interval between	59.7 fl oz PREVATHON™ or	0.2 lbs a.i. of chlorantra	niliprole containing		

			DUPONT <sup>TM</sup> PREVATHON <sup>TM</sup> RATE			
Crop	Application Method	Target Pest	Lb. ai per acre	fluid ounces product per acre	Last Application (Days to Harvest)	REI (Hours)
Non-grass animal feeds:	FOLIAR	Alfalfa looper Beet armyworm	0.047 - 0.067	14.0 - 20.0	0	4
Alfalfa; bean, velvet; clover (Trifolium, Melilotus); kudzu; lespedeza; lupin; sainfoin; trefoil; vetch; vetch, crown; vetch, milk	Make one application pe	59.7 fl oz PREVATHON™ or (	0.2 lbs a.i. of chlorantra	niliprole containing		
Potato	FOLIAR	Beet and Yellowstriped Armyworms Cabbage looper Colorado potato beetle European com borer	0.047 - 0.067	14.0 - 20.0	14	4
	Do not apply more than products per acre per crc Colorado potato beetle regeneration of Colorado potato beetle Do not apply PREVATH PREVATHONTM may o overhead sprinkler irriga	plications per acre per crop. 59.7 fl oz PREVATHONTM or 0 pp. The minimum interval betweesistance management: Do not a potato beetle or within any 30 de must be with an effective proof HONTM more than once to Color nly be applied to potatoes as a c tion systems. See "CHEMIGA" instructions on overhead sprinkly	een treatments is 5 days.  apply PREVATHONTM  ay period. Application(s)  fuct with a different mo  ado potato beetle via ov  lirect foliar spray or via  FION USING OVERHI	more than twice to a s) to the next generation de of action. verhead chemigation. chemigation through		
Protected Seed Oilseeds: crambe, hare's-ear mustard, jojoba, lesquerella, lunaria, milkweed, mustard seed, oil radish, poppy seed, rapeseed, rose hip, sesame, tallowwood, tea oil plant						4
Sugarcane	FOLIAR	Sugarcane borer	0.047 - 0.067	14.0 - 20.0	14	4
	Minimum interval between	59.7 fl oz PREVATHON™ or (	0.2 lbs a.i. of chlorantra	niliprole containing		

	Application Method		DUPONT™ PR	EVATHON™ RATE	Last Application (Days to Harvest)	
Crop		Target Pest	Lb. ai per acre	fluid ounces product per acre		REI (Hours)
Tuberous and Corm Vegetables	FOLIAR	Beet armyworm Western yellowstriped armyworm	0.047 - 0.067	14.0 - 20.0	14	4
(except potato): Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen (taro); ginger; leren; sweet potato; tanier; turmeric; yam bean;	Minimum interval between	59.7 fl oz PREVATHON™ or 0.:	2 lbs a.i. of chlorantra	uniliprole containing		
yam, true Tree Nuts Including	FOLIAR	Hickory shuckworm Pecan nut casebearer	0.047 - 0.097	14.0 - 29.0	10	4
Almond; Beech nut; Brazil nut; Butternut; Cashew;	FOLIAR	Codling moth Navel orange worm Oblique banded leafroller Oriental fruit moth Peach twig borer	0.067 - 0.097	20.0 - 29.0		
Chestnut; Chinquapin; Filbert (hazelnut); Hickory nut; Macadamia (bush) nut; Pecan; Pistachio; Walnut, black and English (Persian)	products per acre per cro The minimum interval by Spray Volume: Thorougi for the size of trees or pl. Do not apply less than 30 For best results apply 10 Where higher spray volu Do not apply PREVATE Codling moth – (Walnu Depending on level of in application equipment to Navel orange worm (Hu make a second applicatio use of higher rates in the Peach twig borer – For registered dormant oil; for labels for precautions an apply with ground equip high rate is recommende Peach twig borer – For dormant (just prior to bu generation: Make applica	59.7 fl oz PREVATHON™ or 0.0 p per season. etween treatments is 7 days. h coverage is essential to achieve ants and density of foliage.	EVATHONTM rate in tion system. efore peak egg lay for as needed. Use higher tean application at 1-ter. Depending on levelitiple applications mathon may be tank it is es of oil, consult man foils in tree nut crops in coverage of all scaff o mid-dormant timing ing generation: Make; ay spray" applications at or before peak egg	spray volume appropriate the specified rate range. r targeted generation. er rates and ground - 5% hull-split timing; el of pest infestation, by be needed. mixed with an EPA		

## 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 HIGHER CAPACITY 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. AVOID APPLICATIONS 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.

# AIR ASSISTED (AIRBLAST) FIELD CROP SPRAYERS

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

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

# CHEMIGATION USING OVERHEAD SPRINKIJERS SYSTEMS

Types of Chemigation Systems: DuPont<sup>TM</sup> PREVATHON<sup>TM</sup> may be applied through overhead springer irrigation systems, including the following; center pivot, end tow; hand move, lateral move, side roll, solid set and wheel fine. The irrigation system used must provide uniform water distribution.

## **Directions for Chemigation:**

#### Preparation

A pesticide tank is recommended for the application of DuPont<sup>TM</sup> PREVATHON<sup>TM</sup> 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 PREVATHON<sup>TM</sup> 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 PREVATHON<sup>TM</sup> to water, never put PREVATHON<sup>TM</sup> 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 PREVATHON™ into the irrigation water flow using a positive displacement injection pump or a Venturi injector. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. For continuously moving systems, inject the solution containing PREVATHON™ 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 PREVATHON™ 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 PREVATHON<sup>TM</sup> must provide for uniform distribution of PREVATHON<sup>TM</sup> 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 PREVATHON<sup>TM</sup>. 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 PREVATHON<sup>TM</sup> is in the irrigation water.

#### Operation

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

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

## Cleaning the System

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

# REQUIRED SYSTEM SAFETY DEVICES FOR ALL CHEMIGATION SYSTEMS

- 1. The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering device, such as a positive displacement pump or a Venturi injector, that provides uniform injection of the product, is effectively designed and constructed of materials compatible with the product, and is capable of being fitted with a system interlock.
- 7. Chemigation systems connected to public water systems must contain a functional, reduced- pressure zone, backflow

preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

# SPRAY TANK CLEANOUT

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

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

Clean all other associated 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.

#### STORAGE AND DISPOSAL

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

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

**PESTICIDE DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

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

For Small (Capacity Equal to or Less Than 5 Gallons) 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 and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For Large (Capacity Greater Than 5 Gallons) 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.

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

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.

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