# PLEASE NOTE

This image contains more than one label approved for this product on this date.

352-597

**DuPont Crop** 

**Protection** 

09 05/2007 ( SUPPLEMENTAL LABE

DUPONT<sup>TM</sup> AVAUNT® INSECTICIDE ON FRUITS AND VEGETABLES

## DUPONT<sup>™</sup> AVAUNT® INSECTICIDE

EPA Reg. No. 352-597

For Foliar Insect Control in Brassica Leafy Vegetables, Cranberry, Cucurbit Vegetables, Grape, Leafy Green Vegetables, Leafy Petioles, Mint, Okra, Pome Fruit (except Pears), Southern Pea (dry varieties only), Spinach, Stone Fruit and Tuberous & Corm Vegetables

#### **DIRECTIONS FOR USE**

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

#### **GENERAL INFORMATION**

AVAUNT® is a water dispersible granule that can be applied as a foliar spray to control many important insect pests. AVAUNT® is diluted with water for application.

#### **Resistance Management**

Unless directed otherwise in the specific crop/pest sections of this label, the following best practices are recommended to delay the development of insecticides resistance: make no more than 2 successive applications per generation or within a 30 day period to the same insect species on a crop. The following application to the target pest(s) must be with an effective product with a different mode of action (for example DuPont<sup>TM</sup> ASANA® XL or DuPont<sup>TM</sup> LANNATE® inseticides).\*

See label accompanying product for full-resistance management instructions.

#### **APPLICATION**

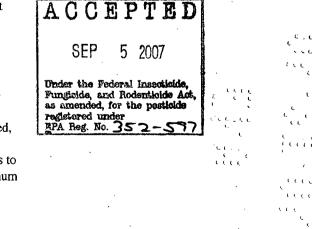
Apply at the recommended rates when insect populations reach locally determined economic thresholds.

Follow-up treatments of DuPont<sup>™</sup> AVAUNT® should be applied, as needed, to keep pest populations within threshold limits. On most crops, AVAUNT® should be applied at 3 to 5 day intervals to maintain control. For cranberry, pome and stone fruit the minimum interval between treatments is 7 days.

Use sufficient water to obtain thorough, uniform coverage.

Because AVAUNT® 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. AVAUNT® may be applied by ground or aerial application equipment. For aerial application use the following directions unless otherwise specified in this label: use a minimum of 5 gallons per acre (gpa) of water, except in tree and vine crops use a minimum of 10 gpa. For ground applications, use the following directions unless otherwise specified in this label: use a minimum of 10 gallons per acre (gpa) of water, except in tree and vine crops use a minimum of 50 gpa and a maximum of 200 gpa of water.

Refer to the table on pages 2-6 of this supplemental label for additional application information, rates and timing.



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Crops	Insects	-DuPont <sup>™</sup> AVAU Lbs. A.I.	NT® Rate Per Acre Ounces	Last Application Days to Harvest	REI
Brassica (Cole) Leafy Vegetables,	Beet Armyworm Diamondback moth	0.065*	3.5*	3	12 hrs.
including Broccoli, Chinese broccoli, Broccoli raab, Brussels sprouts, Cabbage,	Cabbage looper Cabbage webworm (except California) Cross striped cabbageworm (except California) Imported cabbageworm	0.045 - 0.065*	2.5 - 3.5*		
Chinese cabbage (napa and bok choy). Chinese mustard cabbage, Cauliflower, Cavalo broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard greens, Rape greens and Turnip tops**	Do not apply more than 14 our The minimum interval betwee Do not apply to greenhouse or Resistance Management for D any generation of diamondbac insecticide with a different mo Do not apply less than 3.5 oun result in reduction in diamond AVAUNT® and apply a regist more than 6 total applications per farm location. -In the State of Georgia: Do no control of diamondback moth *Add a wetting agent to impro *For use on turnips grown fo				
Cranberry	Cranberry weevil* Blackheaded fireworm Spanworm	0.11	6.0	30	12 hrs
	Do not apply to flow through I following application. Do not apply more than 24 oz. The minimum interval betwee *Apply up to two applications bloom. Do not apply more that season for control of cranberry				

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	<u>``</u>	DuPont <sup>™</sup> AVAUNT® Rate Per Acre			Last Application	
Crops	Insects	Lbs. A.I.	Ounces		Days to Harvest	REI
Cucurbit vegetables - including	Melonworm Pickleworm	0.045 - 0.11	2.5 - 6.0		3	12 hrs .
Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber,	Do not apply more than 24 our The minimum interval between For ground applications, apply	i sprays is 5 days.	·		· · · · · · · · · · · · · · · · · · ·	
Gherkin, Edible gourd (including hyotan, cucuzza, hechima and Chinese okra),				1		
Momordica species (including balsam apple, balsam pear, bitter melon and Chinese cucumber).						
Muskmelon (including true canteloupe, canteloupe, casaba, crenshaw melon,						
golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon,						
pineapple melon, Santa Claus melon and snake melon), Pumpkin, Summer squash (including	- 			•		
crookneck squash, scallop squash, straightneck squash, vegetable marrow and zucchini),		•		·	• •	
Winter squash (including butter- nut squash, calabaza, hubbard squash, a acorn squash and spaghetti squash)						
and Watermelon						
Grape	Grape leaffolder Japanese beetle (except California) Western grapeleaf skeletonizer	0.065 - 0.11	3.5 - 6.0		7	12 hrs
	Grape berry moth (except California) Leafhoppers (suppression only)	0.09 - 0.11	5.0 - 6.0			
	Omnivorous leafroller	0.11	6.0		·	
	Make the first application at initiation of egg hatch or at the first signs of infestation for each generation. Use the higher application rate for moderate to heavy insect pressure. Make application before pests reach damaging levels. Monitor fields and make an additional application if populations rebuild to potentially damaging levels. Apply in sufficient water to obtain thorough coverage of foliage. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action threshold levels for these pests.					
-	Make no more than 2 applicati Do not apply more than 12 oz. The minimum interval betweer For best results, use an adjuvar	AVAUNT® (0.22 lbs 1 sprays is 21 days.			ce.	

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		DuPont <sup>™</sup> AVAUNT® Rate Per A		Last Application	
Crops	Insects	Lbs. A.I.	Ounces	Days to Harvest	REI
Leafy Green Vegetables,	Beet armyworm Corn earworm	0.065 - 0.11	3.5 - 6.0	3	12 hrs.
(except spinach	Cabbage looper	0.045 - 0.065	2.5 - 3.5		
and spinach varieties), including: Arugula (Roquette), Chervil, Edible-leaved chrysanthemum, Garland chrysanthe- mum, Corn salad, Garden cress, Upland cress, Upland cress (yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Head and Leaf Lettuce, Orach, Parsley, Garden Purslane, Winter purslane, and Radicchio (red chicory)		n sprays is 3 days.			
Leafy petioles, including:	Beet Armyworm Cabbage looper	0.065	3.5	3	12 hrs
Cardoon, Celery, Chinese celery, Celtuce, Florence fennel (finochio), Rhubarb and Swiss chard	Do not apply more than 14 oun The minimum interval between				
Mint (Peppermint and	Cabbage looper Spotted cutworm	0.065	3.5	7	12 hrs
Spearmint)	Do not apply more than 14 oun per crop. The minimum interval between For ground applications, apply of water.				
Okra	Beet armyworm Southern armyworm Tomato fruitworm	0.065	3.5	3	12 hrs.
	Loopers	0.045 - 0.065	2.5 - 3.5		] ]
	Do not apply more than 14 oun The minimum interval between				

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<u> </u>		h <del></del>	UNT® Rate Per Acre	Last Application			
Crops Pome Fruit (except	Insects Codling moth - East of the	Lbs. A.I.	Ounces	Days to Harvest	REI		
pear) including:	Rocky Mountains	0.09 - 0.11	5.0 - 6.0	. 14	12 hrs.		
Apple, Crabapple, Loquat, Mayhaw,	Codling moth - West of the Rocky Mountains*	0.09 - 0.11	. 5.0 - 6.0				
and Quince	European apple sawfly (except California) Green fruitworm (except California) Lesser appleworm Oriental fruit moth Pandernis leafroller Plum curculio Potato leafhopper Redbanded leafroller Spotted tentiform leafminer - suppression only** (except California) Tarnished plant bug Tufted apple bud moth	0.09 - 0.11	5.0 - 6.0				
	White apple leafhopper*** Lacanobia fruitworm	0.056 - 0.11	3.0 - 6.0				
	(except California) Apple maggot****	0.11	6.0		•		
	Make no more than 3 application			ftor the 4th			
	per acre. For best results apply treatments is 7 days. *West of the Rockies. For use a control measures such as estab **Use of an adjuvant may imp. For best results, especially whe ***White apple leafhopper (OI (0.045 - 0.089 lbs. A.L/acre) m **** Apple maggot - apple may	s a.i.) per acre per crop. Do not apply dilute applications of more than 200 gal water For best results apply 50 - 150 gal water per acre. The minimum interval between its is 7 days. If the Rockies. For use against low to moderate infestations in conjunction with alternate neasures such as established Mating Disruption blocks. If an adjuvant may improve performance. results, especially when using the lower use rate, use an adjuvant. te apple leafhopper (OR and WA only)-application rates of 2.5 - 4.9 ounces per acre 0.089 lbs. A. L/acre) may be used for suppression of light infestations. ple maggot - apple maggot entering the orchard from border areas may not be controlled o not feed on treated apples prior to oviposition.					
Southern pea (Use on dried	Corn Earworm European Corn Borer	0.065	3.5	7	12 hrs		
Southern pea varieties only)	Do not apply more than 14 oun The minimum interval between Make a uniform application in	sprays is 3 days.		· ·			
Spinach, New Zealand spinach,	Beet armyworm Cabbage looper	0.065	3.5	3	12 hrs		
Vine spinach and Amaranth (leafy amaranth, Chinese spinach amaranth)	Do not apply more than 14 oun The minimum interval between	•					
Stone Fruit	Plum curculio	0.09 - 0.11	5.0 - 6.0	14	12 hrs.		
ncluding, Apricot, Sweet cherry, Tart cherry, Nectarine,	Peach twig borer* Oriental fruit moth (suppression only)	0.11	6.0		· ·		
Peach, Plum, Chicksaw plum, Damson plum, Japanese plum, Plumcot and Prune	Make no more than 3 application Make no more than 4 application per acre per crop. Do not apply apply 50 - 150 gal-water per ac * Peach twig borer - AVAUNTO AVAUNT® provides control of Peach twig borer (dormant and dormant spray for the control of dormant oil; for specific recomperformance, ground application						

	DuPont™ AVAUNT® Rate Per Acre			Last Application		
Crops	Insects	Lbs. A.I.	Ounces	Days to Harvest	REI	
Tuberous and Corm	Cabbage looper	0.045 - 0.11	2.5 - 6.0	7	12 hrs.	
Vegetables, including: Arracacha,	Colorado potato beetle* European corn borer (except California)	0.065 - 0.11	3.5 - 6.0			
Arrowroot, Chinese Artichoke,	Potato tuberworm** (except California)	0.056 - 0.11	3.0 - 6.0			
Jerusalem Artichoke Edible Canna (Queensland arrowroot), Bitter and Sweet Cassava, Chayote (root), Chufa, Dasheen (taro), Ginger, Leren, Potato, Sweet Potato, Tanier (cocoyam), Tumeric, Yam Bean (jicama, manoic pea), and True Yam	<ul> <li>Do not apply more than 24 our The minimum interval betwee *Colorado potato beetle - In si suspected to be difficult to cor piperonyl butoxide (PBO), a si control. In these situations, a ci control of Colorado potato beet Apply the low rates on small p intermediate rates on large insi recommended rate for controll thorough coverage spray using sufficient water to obtain thoro of 5 gallons of water per acre.</li> <li>**Potato tuberworm foliar fee overhead chemigation to vigor scenescence. Repeat application populations as low as possible adequately control tuberworm damage.</li> <li>Potato tuberworm is a difficult and on the underside of the leat tubers. An integrated spray ap adequate control of larvae in the integrate chemigation applications, use at least 5 gall Seed Oil (MSO) as a spray adj applications, apply in 0.1 to 0. Do not make more than two-see before rotating to another registion</li> </ul>	n sprays is 5 days. tuations where Colo trol with current ins ynergist, with AVAU ombination of AVAI ombination of AVAI per acre of PBO ma the larvae. lants, small insects cots and heavier infe ing severe infestatio properly calibrated ugh and uniform co ding larvae - AVAUI ously growing plant ms of effective insec prior to harvest in o larvae prior to crop. pest to control due f, and larvae feed in sroach is essential. he mid to lower crop ions into the foliar s ground applications ons of water per acr uvant at 1 gallon pe 2 acre inch of water quential applications	prado potato beetle populati ect control products, the in- INT® may be necessary to UNT® applied at a rate of 3 ay be necessary to achieve t and light infestations of ins- stations of insects. Use the ons. Apply AVAUNT® inse- air or ground spray equipm werage. For aerial application NT® is most effective where is through tuber bulking pri- ticides may be needed to k order to reduce the risk of tu scenescence or vinekill inc to several factors; eggs can side the leaves prior to mov oliar sprays alone (ground o canopy. For best results, ap pray program. Ensure thore use at least 10 gallons of w e. For best results with foliar r 100 gallons of spray volut and add MSO at 12 to 16 fs s of AVAUNT® for control	ions are known or clusion of achieve optimum 3.5 - 6.0 oz.per the most effective ects. Use highest cticide as a nent. Use on, use a minimum n applied by ground, air or or to the beginning of crop eep tuberworm larvae uber damage. Failure to reases the risk of tuber be laid deep in the canopy ving to the soil to feed on the or air) may not provide pply via chemigation or pugh coverage by using ater per acte. For aerial ar sprays, add Methylated me (1% v/v). For chemigation 1 oz/A. I of potato tuberworm		

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#### IMPORTANT

Before using AVAUNT®, read and follow all applicable directions; restrictions; and precautions on the EPA-registered label.

This bulletin contains new or supplemental instructions for use of these products in combination which does not appear on the package label. Follow the instructions carefully.

This labeling must be in the possession of the user at the time of pesticide application.

Read the Limitation of Warranty and Liability on the Section 3 Federal product label before buying or using THIS product. If terms are not acceptable, return the unopened package at once to Seller for full refund of purchase price paid. Otherwise, use by Buyer or any other User constitutes acceptance of the terms of the Limitation of Warranty and Liability on the Section 3 Federal product label.

\* DuPont<sup>TM</sup> Asana<sup>®</sup> XL and DuPont<sup>TM</sup> Lannate<sup>®</sup> insecticides are restricted use pesticides.

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# NEXT

LABEL

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**DuPont Crop Protection** 

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Under the Federal Insecticide, Fundation, and Redonticide Act, as amended, for the posticide registered under PA Heg. No. 352-597

09/05/2007 SUPPLEMENTAL

LABELING

DUPONT™ AVAUNT® INSECTICIDE FOR USE ON MINT AND CRANBERRY VIA OVERHEAD SPRINKLER

# DUPONT<sup>TM</sup> AVAUNT® INSECTICIDE

EPA Reg. No. 352-597

# FOR USE ON MINT AND CRANBERRY VIA OVERHEAD SPRINKLER IRRIGATION

#### **DIRECTIONS-FOR USE**

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

#### IMPORTANT

BEFORE USING AVAUNT INSECTICIDE, READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRIC-TIONS AND PRECAUTIONS ON THE EPA-REGIS-TERED LABEL.

#### **General Information**

AVAUNT® is a water dispersible granule that is applied by foliar applications to control many important insect pests. AVAUNT® is mixed with water for application.

#### Application Information, Rates and Timing Cranberry

DuPont AVAUNT® is recommended for control of cranberry weevil, blackheaded fireworm and spanworm at the rate of 6.0 oz product per acre applied through overhead sprinkler irrigation systems. Apply AVAUNT® in 0.1 to 0.2 inches of water per acre.

Make sequential applications at 7 day intervals or until populations are brought below threshhold. Do not apply more than 24.0 oz (0.44 lbs a.i.) AVAUNT® per crop. Apply up to two applications to the spring (overwintering) generation of adult cranberry weevil prior to bloom. Do not apply more than 12 oz. AVAUNT® (0.22 lb a.i.) per acre per season for control of cranberry weevils. Do not harvest cranberries within 30 days of the last application of AVAUNT®. Do not apply to flow through bogs or allow release of irrigation water from bogs for at least 1 day following application.

#### Mint

DuPont<sup>™</sup> AVAUNT® is recommended for the control of cabbage looper and spotted cutworm at the rate of 3.5 oz product per acre applied through overhead sprinkler irrigation systems. Apply AVAUNT® in 0.1 to 0.2 inches of water per acre. Make sequential applications at 3 day intervals or until populations are

brought below threshold. Do not apply more than 14 ounces of AVAUNT® (0.26 lbs a.i.) per acre per crop.

#### **Types of Chemigation Systems:**

AVAUNT® may be applied only through overhead sprinkler irrigation systems. The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply AVAUNT® through any other type of irrigation systems.

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

#### Preparation

A pesticide tank is recommended for the application of AVAUNT® 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 Avaunt® 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 AVAUNT® to water, never put Avaunt® into a dry tank or other. mixing equipment without-first\_adding water. See 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. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic.

For product information call 1-888-6-DUPONT

#### **Injection Into Chemigation Systems**

Inject the proper amount of AVAUNT® 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 AVAUNT® into the irrigation water line continually and uniformly throughout the irrigation cycle. Apply no more than 0.2 inches of water per acre. For overhead sprinkler systems that are stationary, add the solution containing AVAUNT® to the irrigation water line and apply no more than 0.2 inches of water per acre just before the end of the irrigation cycle.

#### **Uniform Water Distribution**

The irrigation system used for application of AVAUNT® must provide for uniform distribution of AVAUNT® treated water. Non-uniform distribution might 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 AVAUNT®. 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 AVAUNT® is in the irrigation water.

#### **Required System Safety Devices**

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

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and 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.

#### 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.

### IMPORTANT $\supset$ $\bigcirc$ BEFORE USING AVAUNT®, READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA-REGISTERED LABEL.

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