

**INSECTICIDE** 

EPA Est. No.

# **DuPont™ Avaunt®**

#### INSECTICIDE

Dispersible Granules	
Active Ingredient	By Weight
Indoxacarb	_
(S)-methyl 7-chloro-2,5-dihydro-2-[[(methoxycarbonyl)[4-(trifluoromethoxy)phenyl]amino]carbonyl]indeno	
[1,2-e][1,3,4]oxadiazine-4a(3H)-carboxylate	30%
Other Ingredients	70%
TOTAL	100%

**GROUP** 

EPA Reg. No. 352-597 **Nonrefillable Container** 

Net:

OR

**Refillable Container** 

Net:

## **KEEP OUT OF REACH OF CHILDREN** CAUTION

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

#### FIRST AID

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

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

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

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Caution! Harmful if swallowed. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eves or clothing. Wash thoroughly with soap and water after handling. Harmful if inhaled. Avoid breathing (dust, vapor or spray mist). Remove contaminated clothing and wash clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for Category A on the EPA chemical resistance category selection chart.

#### **Applicators and other handlers must wear:**

Long-sleeved shirt and long pants.

Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber), all >14 mils.

Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS. IMPORTANT: when reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicator and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

#### **USER SAFETY RECOMMENDATIONS**

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

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to mammals, birds, fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment rinsewater. Do not apply where/when conditions could favor runoff. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Cover, incorporate, or clean up granules that are spilled.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are foraging in the treatment area.

#### DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

DuPont™ AVAUNT® 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 this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

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

Coveralls over long-sleeved shirt and long pants,

Socks plus chemical resistant footwear,

Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber), all ≥14 mils.

 $DuPont^{TM}$  AVAUNT® must be used only in accordance with the directions on this label or in separate DuPont supplemental labeling available as a result of new EPA approvals.

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

- Use only in commercial and farm plantings.
- Not for use in home plantings.
- Do not formulate this product into any other End-use products without written permission of DuPont.

CHEMIGATION: Do not apply this product through any type of irrigation system except for application to cranberries, mint, potatoes and sweet corn and as allowed by Federal Supplemental and Special Local Need (SLN) labeling. (See "Application By Chemigation" section of the label.)

#### 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  $DuPont^{TM}$  AVAUNT® based on locally determined economic thresholds. More than one treatment of AVAUNT® may be required to control a population of pests.

#### RESISTANCE MANAGEMENT

For resistance management, AVAUNT® is a group 22 insecticide. Repeated and exclusive use of AVAUNT® or other group 22 insecticides 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. When this occurs, the recommended dosages fail to suppress the pest population below the economic threshold. Because the development of resistance cannot be predicted, the use of this product should conform to resistant 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 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 "Asana" XL or DuPont<sup>TM</sup> LANNATE® insecticides).

If resistance to AVAUNT® develops in your area, AVAUNT®, 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 listed 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.

Follow-up treatments of AVAUNT® should be applied, as needed, to keep pest populations within threshold limits. Apply AVAUNT® on most crops every 3 to 5 days, as specified in the specific crop sections, to maintain control. For bushberry, cranberry, dry bean, 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, aerial or overhead sprinkler chemigation 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.

Use of Adjuvants: In some situations where coverage is difficult to achieve such as closed canopy, dense foliage, plants with waxy leaf surfaces, or less than optimum application equipment, an adjuvant may improve performance. Use only adjuvant products that are labeled for agricultural use and follow the directions on the manufacturer's label. For uses in fruit crops, use a proven and recommended adjuvant that does not affect fruit finish.

Do not use adjuvant on bushberries or garden beets.

#### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying AVAUNT®. Fill spray tank 1/4 to 1/2 full of water. Add AVAUNT® 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. Spray mix must not be stored overnight in spray tank.

**Compatibility** - Since formulations may be changed and new ones introduced, it is recommended that users 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 label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

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

- 1. Water soluble bags.
- 2. DuPont™ AVAUNT® 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, oils.
- 9. Soluble fertilizers.
- 10. Drift retardants.

Follow local practice and manufacturer's recommendations.

#### **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.

#### **CROP ROTATION**

Crops that are on this label and alfalfa, cotton, peanuts and soybeans may be planted immediately following harvest. Do not plant for food or feed any other crops not registered for use with indoxacarb for 30 days after last use.

## APPLICATION BY CHEMIGATION – CRANBERRY, MINT, POTATOES, SPINACH\* AND SWEET CORN

\*Use on spinach via overhead sprinkler irrigation is allowed only in the states of Arkansas, Georgia, Missouri, North Carolina, New Mexico, Oklahoma, and Texas unless otherwise permitted in supplemental labeling.

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

Overhead chemigation applications offer the advantage of greater penetration and coverage of the target plant. However, typical chemigation applications are more dilute than ground or aerial applications. For best results, it is recommended to keep the concentration of AVAUNT® as high as possible in the application. Apply AVAUNT® in 0.1 to 0.2 inches of water per acre. AVAUNT® is most active as an ingestion insecticide, although it does have activity as a direct contact insecticide. For best results, applications of AVAUNT® should ensure thorough coverage of the target plant to maximize the opportunity for target insects to ingest AVAUNT®.

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

AVAUNT® 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. Center pivot and lateral move irrigation systems are preferred. Other overhead sprinkler systems may be used if they provide uniform water distribution. Do not apply AVAUNT® through any other type of irrigation system. 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.

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

#### **Preparation**

Use a pesticide tank 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 must be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic.

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

Inject the proper amount of AVAUNT® into the irrigation water flow using a positive displacement injection pump. Inject the mixture 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 in 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  $DuPont^{TM}$  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.
- Plug nozzles in the immediate area of control panels, chemical supply tanks and system safety devices 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.

		DuPont™ AVAUNT® Rate Per Acre		Last Application		
Crops	Insects	Lbs. A.I.	Ounces	(Days to Harvest)	REI	
<b>Dried</b> southern pea	Corn Earworm European Corn Borer  Make no more than 4 application Do not apply more than 24 oz acrop. Do not apply more than 72 oz	12 hrs				
. (3.)	For ground applications, make	a uniform application				
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 spinach, Rape greens and Turnip tops**	Make no more than 4 application Do not apply more than 14 oz actorop.  Do not apply more than 56 oz of year.  The minimum interval between Do not apply to greenhouse or Resistance Management for Di any generation of diamondback insecticide with a different mod Do not apply less than 3.5 ounc result in reduction in diamondback avalunt® and apply a registe more than 6 total applications of per farm location.  In the State of Georgia: Do not control of diamondback moth p *Add a wetting agent to improv **For use on turnips grown for	AVAUNT® or 0.26 ll of AVAUNT® or 1.0- a sprays is 3 days. field grown brassica of amondback Moth: Document of action (ie. a process of AVAUNT® perced insecticide with of AVAUNT® per call apply more than 4 apper farm location.	es a.i. of indoxacarb cont 4 lbs a.i. of indoxacarb cont erops grown for transplar o not apply AVAUNT® r ne second application, rot duct with a different IRA r acre. If applications of a different mode of action lendar year for control of	ontaining products per acre per at.  more than twice to tate to another C group number).  AVAUNT® do not p use of n. Do not make diamondback moth		
Bushberries Including:	Cranberry fruitworm, Cherry fruitworm	0.065 - 0.11	3.5 - 6.0	7	12 hrs.	
Aronia berry, Blueberries	Winter moth Bruce spanworm	0.11	6.0			
(Highbush blueberry and Lowbush blueberry), Chilean guava, Currants (Black currant, Buffalo currant, Native currant and Red currant), European barberry, Elderberry, Gooseberry, Highbush cranberry, Honeysuckle, Huckleberry, Jostaberry, Juneberry, Salal, Sea buckthorn; cultivars, varieties and/or hybrids of these.	Lowbush eberry), lean guava, rants (Black rant, Native rant and Red rant), opean barberry, erberry, blush cranberry, eseberry, hbush cranberry, eberry, aberry, eberry, aberry, eberry, buckthorn; ivars, varieties/or hybrids of					
Corn (sweet) For application through tassle	European corn borer (except California) Fall armyworm	0.045 - 0.065	2.5 - 3.5	3 35 - fodder & stover	12 hrs.	
push only.	Make no more than 4 applicatic Whorl stage through tassel push than 14 oz AVAUNT® or 0.26 Do not apply more than 42 oz oyear.  The minimum interval between Overhead Chemigation - AVAl guidance see label section titled POTATOES, SPINACH* ANI stage of growth up to tassel pushersholds. For best results, a sl continuously agitated in the injuroper rate per acre.	14 days for hand harvesting				

		DuPont™ AVA	AUNT® Rate Per Acre	Last Application	
Crops	Insects	Lbs. A.I.	Ounces	(Days to Harvest)	REI
Cranberry	Cranberry weevil* Blackheaded fireworm Spanworm	0.11	6.0	30	12 hrs
	Do not apply to flow through bogs or allow release of irrigation water from bogs for at least 1 day following application.  Make no more than 3 applications per acre per season.  Do not apply more than 24 oz of AVAUNT® or 0.44 lbs a.i. of indoxacarb containing products per acre per season.  The minimum interval between sprays is 7 days.				
	*Apply up to two applications bloom. Do not apply more that season for control of cranberry	n 12 oz. AVAUNT	vintering) generation of adu	lt cranberry weevil prior to	
Cucurbit vegetables Including: Chayote (fruit),	Cabbage Looper Melonworm Pickleworm	0.045 - 0.11	2.5 - 6.0	3	12 hrs
Chinese waxgourd	Beet Armyworm	0.065 - 0.11	3.5 - 6.0		
(Chinese) preserving melon) Citron melon, Cucumber, Gherkin, Edible gourd (including hyotan, cucuzza, hechima and Chinese okra), Momordica species (including balsam apple, balsam pear, bitter melon and Chinese cucumber), Muskmelon (including true canteloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honeydew melon, honeydew melon, honeydew melon, pineapple melon, pineapple melon, santa Claus melon and snake melon), Pumpkin, Summer squash (including crookneck squash, straightneck squash, straightneck squash, vegetable marrow and zucchini), Winter squash (including butternut squash, calabaza, hubbard squash, acorn squash and spaghetti squash)	Make no more than 4 application Do not apply more than 24 oz a crop. Do not apply more than 72 oz a year. The minimum interval between For ground applications, apply	AVAUNT® or 0.44 of AVAUNT® or 1 sprays is 5 days.	This a.i. of indoxacarb conta .32 lbs a.i. of indoxacarb co	ontaining products per acre per	
ruiting Vegetables and Okra Including: eggplant, groundcherry, pepino, peppers (bell, chili, cooking, pimento and sweet), tomatillo and tomato	Beet armyworm European Corn Borer* (except California) - bell pepper only Leafminer (Use on Florida tomatoes only - suppression only)** Southern armyworm Tomato fruitworm Tomato pinworm Western yellowstriped armyworm	0.065	3.5	3	12 hrs.
	Hornworms Loopers	0.045 - 0.065	2.5 - 3.5		
	Make no more than 4 application Do not apply more than 14 oz a crop. Do not apply more than 42 oz a year. The minimum interval between *- European corn borer applicated AVAUNT® following two approntrol in bell pepper. ** Suppression of leafminer or	AVAUNT® or 0.26 of AVAUNT® or 0 a sprays is 5 days. tions for use only o dications of an orga	ibs a.i. of indoxacarb conta .78 lbs a.i. of indoxacarb con n bell peppers - For best res ino-phosphate insecticide la	ontaining products per acre per sults, begin applications of beled for European corn borer	

		DuPont™ AVAUNT® Rate Per Acre		e Last Application		
Crops	Insects	Lbs. A.I.	Ounces	(Days to Harvest)	REI	
Garden beet	Beet armyworm	0.065 - 0.11	3.5 - 6.0	7	12 hrs.	
	Make no more than 4 application Do not apply more than 24 oz a crop.  Do not apply more than 96 oz oyear.  The minimum interval between					
Do not use adjuvants.						
Grape	Grape leaffolder Japanese beetle (except California) Western grapeleaf skeletonizer	0.003 - 0.11	3.5 - 0.0	,	12 hrs	
	European grapevine moth Grape berry moth (except California) Leafhoppers (suppression only) Light brown apple moth	0.09 - 0.11	5.0 - 6.0			
	Katydid (nymphs)* Omnivorous leafroller	0.11	6.0			
	Make the first application at in Use the higher application rate damaging levels. Monitor field damaging levels. Apply in suff cooperative extension service, appropriate action threshold lev Make no more than 2 applicatic Do not apply more than 12 oz a year.  The minimum interval between For best results, use an adjuvan * Forktailed bush katydid (Scur Correct timing of spray applica achieve best results. Make repe feeding activity.					
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 (yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Head and Leaf Lettuce, Orach, Parsley, Garden Purslane, Winter purslane and Radicchio (red chicory) Leafy petioles	Make no more than 4 applications per season.  Do not apply more than 24 oz AVAUNT® or 0.44 lbs a.i. of indoxacarb containing products per acre per crop.  Do not apply more than 96 oz of AVAUNT® or 1.76 lbs a.i. of indoxacarb containing products per acre per year.  The minimum interval between 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	elery, Do not apply more than 14 oz AVÂUNT® or 0.26 lbs a.i. of indoxacarb containing products per acre per crop.  Do not apply more than 56 oz of AVAUNT® or 1.04 lbs a.i. of indoxacarb containing products per acre per crop.					
Mint (Peppermint and	Cabbage looper Spotted cutworm	0.065	3.5	7	12 hrs	
Make no more than 4 applications per acre per crop. Do not apply more than 14 oz AVAUNT® or 0.26 lbs a.i. of indoxacarb containing products per acre per year. The minimum interval between sprays is 3 days. For ground applications, apply using a minimum of 20 gallons per acre of water. AVAUNT® may be applied to mint by overhead chemigation. For specific guidance see label section titled APPLICATION BY CHEMIGATION – CRANBERRY, MINT, POTATOES, SPINACH* AND SWEET CORN.						

		DuPont™ AVA	UNT® Rate Per Acre	Last Application	
Crops	Insects	Lbs. A.I.	Ounces	(Days to Harvest)	REI
Pear	Codling moth - East of the Rocky Mountains	0.09 - 0.11	5.0 - 6.0	28	12 hrs.
	Codling moth - West of the Rocky Mountains*	0.09 - 0.11	5.0 - 6.0		
	Light brown apple moth Oriental fruit moth Pandemis leafroller (except California) Redbanded leafroller White apple leafhopper (except California)	0.09 - 0.11	5.0 - 6.0		
	Make no more than 3 application application. Make no more that 0.44 lbs a.i. of indoxacarb cont than 200 gal water per acre. Fo between treatments is 7 days.  *West of the Rockies. For use control measures such as estab	n 4 applications per aining products per r best results apply 2 against low to mode	season. Do not apply more acre per year. Do not app 50 - 150 gal water per acre rate infestations in conjun	e than 24 oz of AVAUNT® or ly dilute applications of more c. The minimum interval	
Pome Fruit (except pear)	Codling moth - East of the Rocky Mountains	0.09 - 0.11	5.0 - 6.0	14	12 hrs.
Including: Apple, Crabapple,	Codling moth - West of the Rocky Mountains*	0.09 - 0.11	5.0 - 6.0		
Loquat, Mayhaw, and Quince	European apple sawfly (except California) Green fruitworm (except California) Lesser appleworm Light brown apple moth Oriental fruit moth Pandemis leafroller Plum curculio Potato leafhopper Redbanded leafroller Spotted tentiform leafminer - suppression only** (except California) Tarnished plant bug Tufted apple bud moth White apple leafhopper*** Lacanobia fruitworm (except California) Apple maggot**** Make no more than 3 application application. Make no more than 4 application of indoxacarb containing produwater per acre. For best results treatments is 7 days.	ons per season. Do note per year apply 50 - 150 gal w	not apply more than 24 oz r. Do not apply dilute apply vater per acre. The minim	of AVAUNT® or 0.44 lbs a.i. ications of more than 200 gal um interval between	
	*West of the Rockies. For use control measures such as estab **Use of an adjuvant may imp For best results, especially whe ***White apple leafhopper (Ol (0.045 - 0.089 lbs. A.I./acre) m ****Apple maggot - apple may				
Spinach, New	if they do not feed on treated a  Beet armyworm			3	12 hrs
Zealand spinach,	Cabbage looper				
Vine spinach and Amaranth (leafy amaranth, Chinese spinach amaranth)	Do not apply more than 14 oz AVÂUNT® or 0.26 lbs a.i. of indoxacarb containing products per acre per crop.				
	CRAINDERKT, WIINT, FUTA	TOES, SI INACH".	AND SWEET COKN.		

		DuPont <sup>TM</sup> AVAI	JNT® Rate Per Acre	Last Application		
Crops	Insects	Lbs. A.I.	Ounces	(Days to Harvest)	REI	
Сторз	Insects	1103. 11.11.	ounces	(Day's to Hai vest)	KEI	
Stone Fruit	Plum curculio	0.09 - 0.11	5.0 - 6.0	14	12 hrs.	
Including: Apricot,	Katydid (nymphs)* Oriental fruit moth**	0.11	6.0			
Sweet cherry, Tart	Peach twig borer***					
cherry, Nectarine, Peach, Plum, Chicksaw plum, Damson plum, Japanese plum, Plumcot and Prune	Make no more than 3 application Make no more than 4 application of indoxacarb containing production of indoxacarb containing production of indoxacarb containing production of the production of					
Tuberous and Corm	performance, ground application  Cabbage looper	on equipment is recon 0.045 - 0.11	nmended. 2.5 - 6.0	7	12 hrs.	
Vegetables Including:	Colorado potato beetle* European corn borer	0.043 - 0.11	3.5 - 6.0	,	12 1113.	
Arracacha,	(except California)	0.056 0.11	20.60			
Arrowroot, Chinese Artichoke,	Potato tuberworm**	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	ke. Do not apply more than 24 oz of AVAUNT® or 0.44 lbs a.i. of indoxacarb containing products per acre per crop.  Do not apply more than 96 oz of AVAUNT® or 1.76 lbs a.i. of indoxacarb containing products per acre per year.  The minimum interval between sprays is 5 days.  For POTATO only - AVAUNT® may be applied by overhead chemigation. For specific guidance see label section titled APPLICATION BY CHEMIGATION – CRANBERRY, MINT, POTATOES, SPINACH*  AND SWEET CORN.  *Colorado potato beetle - In situations where Colorado potato beetle populations are known or suspected to be difficult to control with current insect control products, the inclusion of piperonyl butoxide (PBO), a synergist, with AVAUNT® may be necessary to achieve optimum control. In these situations, a combination of AVAUNT® applied at a rate of 3.5 - 6.0 oz.per					

#### 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 CONDITIONS! 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 airstream 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 should 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 should be familiar with local wind patterns and how they effect 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 (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, 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.

#### AIR ASSISTED (AIR BLAST) 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.

#### 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 50 Pounds) Disposable 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) Disposable 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. 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 Nonrefillable Paper or Plastic Bags or Fiber Sacks: Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag or fiber sack into manufacturing or application equipment by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then offer for recycling, if available or dispose of empty paper or plastic bag or fiber sack in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**For Nonrefillable Fiber Drums With Liners:** Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

For Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refill this container with DuPont™ AVAUNT® insect control containing indoxacarb only. Do not reuse this container for any other purpose. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Cleaning the container (fiber drum) 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 (fiber drum) before final disposal, completely empty container by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then offer the container for recycling if available or dispose of liner 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 Other Refillable Containers: Refillable container. Refill this container with AVAUNT® insect control containing indoxacarb 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.

Do not transport if container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact DuPont at 1-800-441-3637, day or night.

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