

66330-40

12/14/2005

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ARENA® 50 WDG

INSECTICIDE

GROUP 4A INSECTICIDE

FOR USE ON APPLE, PEAR, TOBACCO, TURFGRASS AND LANDSCAPE ORNAMENTALS

For foliar and systemic insect control in turfgrass, sod farms, landscape ornamentals, interior plantscapes, and non-bearing fruit, including apples and pears, and nut trees (in landscapes).

INGREDIENTS	By wt.
Active Ingredient	
*Clothianidin.....	50.0%
Inert Ingredients.....	50.0%
Total.....	100.0%

*(E)-1-(2-chloro-1,3-thiazol-5-ylmethyl)-3-methyl-2-nitroguanidine.

KEEP OUT OF REACH OF CHILDREN

CAUTION

A C C E P T E D
DEC 14 2005

See back panel for additional precautionary statements.

66330-40

Arysta LifeScience
North America Corporation
100 First Street, Suite 1700
San Francisco, CA 94105

EPA Registration No. 66330-40
EPA Est. No. _____

NET WEIGHT ____ OUNCES

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • 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 swallowed	<ul style="list-style-type: none"> • Call 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

	<p>poison control center or doctor.</p> <ul style="list-style-type: none"> • Do not give anything by mouth to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none"> • Take off 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	<ul style="list-style-type: none"> • 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 further treatment advice.
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p> <p>FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE: CALL 1-800-228-5635 Ext. 174</p> <p>FOR 24-HOUR CHEMICAL EMERGENCY (Spill, Leak, Fire or Accident) ASSISTANCE: CALL CHEMTREC 1-800-424-9300</p>	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Causes moderate eye irritation. Harmful if swallowed, absorbed through skin or inhaled. Avoid contact with eyes, skin or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

Applicators and other handlers must wear long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride (PVC). Follow the manufacturer's instructions for cleaning/maintaining PPE. If no instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS

When handlers use closed systems or enclosed cabs 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.

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IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for “applicators and other handlers” and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down.

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 product is toxic to aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not apply where runoff is likely to occur. 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 cleaning equipment or disposing of equipment washwater or rinsate.

This product is toxic to bees exposed to direct treatment or residues on blooming crops and plants. Do not apply during bloom or when bees are present.

DRIFT MANAGEMENT

Do not allow this product to drift onto neighboring crops or non-crop areas or use in a manner or at a time other than in accordance with label directions because animal, plant or crop injury, illegal residues or other undesirable results may occur.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. Where states have more stringent regulations, they should be observed.

DIRECTIONS FOR USE

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

Carefully read and understand the Directions for Use and restrictions before applying this product.

Do not apply this product in any way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during

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application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

GENERAL INFORMATION

ARENA 50 WDG is a broad spectrum insect control product, for control of a wide spectrum of insects infesting apples, pears, tobacco, turfgrass, landscape ornamentals and non-bearing fruit and nut trees. Non-bearing fruit and nut trees are trees that do not bear edible fruits and nuts for at least 12 months after application of pesticides. When applied as directed, ARENA 50 WDG provides excellent and long residual insect control.

RESISTANCE MANAGEMENT

ARENA 50 WDG contains a Group 4A² insecticide. Insect biotypes with acquired resistance to Group 4A² may eventually dominate the insect population if Group 4A² insecticides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by ARENA 50 WDG or other Group 4A².

To delay insecticide resistance in insects that are at risk of developing resistance to insecticides consider:

- Avoiding the consecutive use of other Group 4A² insecticides that have a similar target site of action, on the same insect species.
- Using tank-mixtures or premixes with insecticides from a different target site of action Group as long as the involved products are all registered for the same use and have different sites of action.
- Basing insecticide use on a comprehensive IPM program.
- Monitoring treated insect populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors, and/or manufacturer for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report a suspected resistance, you may contact Arysta LifeScience North America Corporation at 1-866-761-9397.

² Not all members of this class have been shown to be cross-resistant. Different resistance mechanisms that are not linked to target site of action, such as enhanced metabolism, are common for this group of chemicals. Alternation of compounds from different subgroups within this class may be an acceptable part of an integrated pest management program.

PLANT TOLERANCE

Neither the manufacturer nor the seller has determined whether or not ARENA 50 WDG can be used safely on all species and cultivars of plants. ARENA 50 WDG has been tested on many cultivars with no phytotoxicity observed at label rates. Since all plant species and their varieties and cultivars have not been tested for tolerance, it is recommended that a small number of plants be sprayed to make certain that no phytotoxicity occurs, prior to any large scale application to plants. The end user assumes all risks arising from application of ARENA 50 WDG in a manner inconsistent with its labeling.

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COMPATIBILITY OF MIXTURES

To obtain broad-spectrum pest control, ARENA 50 WDG can be tank-mixed with other pesticides. However, all plant species and their varieties and cultivars have not been tested with possible tank mix combinations, sequential pesticide treatments and adjuvants and surfactants. The user should conduct a spray mix compatibility and phytotoxicity trial under local conditions to ensure compatibility prior to any large-scale use.

PREPARATION OF SPRAY SOLUTION

Begin with clean equipment. Add sufficient clean water to the spray tank for one-half of the mix load. Start tank agitation. Add and properly suspend the necessary amount of ARENA 50 WDG before adding any other products. Agitate to ensure thorough mixing while adding the remaining required water. Maintain agitation during mixing and application. DO NOT allow the spray mixture to stand without agitation. Apply with properly calibrated spray equipment. If agitation is stopped for any reason, the spray solution must be thoroughly re-mixed prior to any further use.

AGRICULTURAL USES

AGRICULTURAL USE REQUIREMENTS

Use this product 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 on this label about personal protective equipment (PPE), notification to workers 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 entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required 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 is: coveralls, socks, shoes, chemical-resistant gloves made of any waterproof material.

GENERAL RESTRICTIONS AND LIMITATIONS FOR AGRICULTURAL USES

1. DO NOT use a foliar application of clothianidin (CELERO 16 WSG) following an in-furrow or soil application of clothianidin (ARENA 50 WDG).
2. Regardless of formulation or type of application (soil or foliar), DO NOT apply more than a total of 0.2 lbs active ingredient, clothianidin per acre

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per season for all crops, except Turf and Ornamental use, which is not to exceed 0.4 lbs active ingredient.

3. If the maximum season limit of clothianidin as mentioned above has been applied and pest populations require additional treatments, use another registered pesticide that is not in the neonicotinoid class of chemistry.
4. Do not apply by air.

APPLES AND PEARS (AGRICULTURAL)

ARENA 50 WDG should be applied when threshold populations are observed. Do not wait until large insect populations have been established. Apply ARENA 50 WDG in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for optimum control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing, and water volume per acre.

RECOMMENDED APPLICATION RATES

APPLES (Post-bloom Applications)	
PEST	APPLICATION RATE
Aphids Leafhoppers	2 to 3 oz of product per acre (1 to 1.5 oz ai/A)
Plum curculio Apple maggot Leafminers	3 oz of product per acre (1.5 oz ai/A)
Codling moth Oriental fruit moth Leafrollers (suppression)	3 to 6 oz of product per acre (1.5 to 3 oz ai/A) ¹

¹To control Codling moth and Oriental fruit moth, apply ARENA 50 WDG in a program of rotational sprays with other labeled insecticides. When using the 3 oz rate of ARENA 50 WDG to control Codling moth and/or Oriental fruit moth, do not apply treatments less than a 14 day interval.

PEARS (Post-bloom Applications)	
PEST	APPLICATION RATE
Aphids	2 to 3 oz of product per acre (1 to 1.5 oz ai/A)
Codling moth	3 to 6 oz of product per acre (1.5 to 3 oz ai/A)
Leafrollers (suppression) Oblique-banded Leafminers Spotted tentiform Western tentiform	3 oz of product per acre (1.5 oz ai/A)
Pear psylla	4 to 6 oz of product per acre (2 to 3 oz ai/A)

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SPECIAL INSTRUCTIONS AND RESTRICTIONS FOR APPLE AND PEARS

- The amount of ARENA 50 WDG per acre will depend on tree size and pest pressure. Choose lower rates for light infestations and/or small trees and the higher rates for heavy infestations and/or larger trees.
- Apply by ground in 100 to 400 gallons per acre as a full coverage spray. Spray volume will depend on tree size and density of canopy. Applications may also be made as a concentrate spray. Maintain the same amount of product per acre as a dilute application using the appropriate amount of concentrate spray volume. Repeat applications as needed to maintain control but do not apply more often than every 10 days.
- For optimum control of Leafminers and Leafrollers, make the first application as soon as pollination is complete and bees are removed from the orchard. Repeat application as necessary to maintain control. A single application may result in suppression only.
- Do not apply more than 6.4 oz of ARENA 50 WDG (0.2 lb active ingredient) per acre per season.
- Do not apply treatments less than 10 days apart.
- Do not apply within 7 days of harvest.
- Do not feed or allow livestock to graze on cover crops from treated orchards.
- Do not apply ARENA 50 WDG through any type of irrigation system.

TOBACCO

ARENA 50 WDG should be applied when threshold populations are observed. Do not wait until large insect populations have been established to begin treatments.

For optimum control, apply ARENA 50 WDG in sufficient water to ensure uniform and thorough coverage of foliage. To achieve optimum coverage, use accurately calibrated equipment, with spray pressure, nozzles, nozzle spacing and water volumes normally used in applying tobacco insecticides. Make applications using equipment that delivers a coarse droplet spray and low pressure to prevent off target drift. Check calibration periodically to ensure that your equipment is working properly.

RECOMMENDED APPLICATION RATES

TOBACCO	
PEST	APPLICATION RATE
Fleabeetles Aphids	1.5 to 2 oz of product per acre (0.75 to 1 oz ai/A)
Tobacco budworm (suppression) Tobacco hornworm (suppression)	2 oz of product per acre (1 oz ai/A)

SPECIAL INSTRUCTIONS AND RESTRICTIONS

- For suppression of budworms and hornworms, make the first application as soon as eggs hatch and repeat applications as necessary to maintain suppression.

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- Do not apply more than 6.4 oz of ARENA 50 WDG (0.2 lb active ingredient) per acre per season.
- Do not apply treatments less than 7 days apart.
- Do not apply within 14 days of harvest.
- Do not apply ARENA 50 WDG through any type of irrigation system.

NON-AGRICULTURAL USES

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in the box apply to use of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPA applies when this product is used to produce agricultural plants on farms, forests, nurseries and commercial greenhouses and sod farms.

Keep children and pets off treated area until dry.

GENERAL RESTRICTIONS AND LIMITATIONS FOR NON-AGRICULTURAL USES

1. Regardless of formulation or type of application (soil or foliar), DO NOT apply more than a total of 0.2 lbs active ingredient, clothianidin per acre per season for apples and pears. For turf, landscape, ornamentals and non-bearing fruits and nuts do not exceed 0.4 lbs active ingredient.
2. If the maximum season limit of clothianidin (0.4 lbs./acre) has been applied and pest populations require additional treatments, use another registered pesticide.
3. Do not apply by air.

TURF AND ORNAMENTAL

TURFGRASS

ARENA 50 WDG can be used as directed on grass grown in industrial, commercial and residential landscapes such as, but not limited to golf courses, home lawns, airports, cemeteries, parks, playgrounds, athletic fields and commercial sod farms.

ARENA 50 WDG has sufficient residual activity to provide high levels of control. The need for an application can be based on historical monitoring of the presence of or anticipated occurrence of individual or multiple insect pest species, the site, previous records or experiences, current season adult trapping or other methods. Where multiple pests are present or anticipated use the highest rate suggested to control the species that are present. Optimum control of white grubs will be achieved when applications are made just prior to egg laying or to early instar larvae of target pests, followed by sufficient irrigation or rainfall to move the active ingredient into the zone where the insect pests are active.

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Arena 50 WDG can be applied to turf at 6.4-12.8 oz/acre. The rate is dependent on the target pest(s), their stage of development and the desired level of control. Optimum results for grubs (larvae) will be achieved when applications are made just prior to or just after peak egg laying. Higher rates should be used when long residual control is desired or late season curative applications are made to turf already showing grub damage. Multiple applications can be made but do not exceed the maximum amount per year (12.8 oz per acre). Consult your local State Agricultural Experiment Station, State Extension Turf Specialists or other turf experts for specific information concerning the timing of application(s).

Apply ARENA 50 WDG in sufficient water to provide optimal distribution in the treated area. The use of properly calibrated equipment normally used for the application of turfgrass insecticides is required. Use equipment which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly.

Avoid mowing turfgrass until after irrigation or rainfall has occurred so that uniformity of application will not be affected.

APPLICATION RATES

TURFGRASS	
PEST	APPLICATION RATE
Annual bluegrass weevil Black turf grass ataenius White grubs (Japanese beetle, Green June beetle, European chafer, Northern masked chafer, Southern masked chafer, Oriental beetle, Asiatic garden beetle*) Billbugs Sod webworms Chinch bugs*Mole crickets (suppression)* Cutworms (suppression)*	6.4-12.8 oz of product per acre (0.2-0.4 lbs ai/A)
SPECIAL RESTRICTIONS	
Do not apply more than a total of 12.8 oz of ARENA 50 WDG (0.4 lbs active ingredient clothianidin) per acre per season.	

*Use the high rate for control of these insects.

ORNAMENTALS

ARENA 50 WDG is for use on ornamentals for insect control in commercial and residential landscapes and interior plantscapes. To assure optimum effectiveness, good spray coverage of the target plant is essential. Application can be made by foliar application or soil applications including soil injection, drenches, and broadcast sprays. For optimum control, applications should be made prior to anticipated pest infestation.

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APPLICATION RATES FOR DRENCHES AND BROADCAST APPLICATION

ORNAMENTALS	
PEST	APPLICATION RATE
Aphids Caterpillars Japanese beetles Mealy bugs Leafhoppers Leafminers White grub larvae Whiteflies	0.25 oz of product per 1,000 sq. ft. (5.4 oz ai/A)
SPECIAL INSTRUCTIONS AND RESTRICTIONS	
<ul style="list-style-type: none"> Do not apply more than a total of 12.8 oz of ARENA 50 WDG (0.4 lbs active ingredient clothianidin) per acre per season. Drench or broadcast applications will provide control of foliage feeding insects, however, control will not be achieved until the product has been taken up by the plant roots and translocated to the area where the insects are feeding. 	

- Note: 1. If making broadcast applications, water in with enough irrigation or rainfall to move the product into the zone where insects are active.
2. For drench applications, use enough water to move the product into the zone where the insects are active.
3. Drench or broadcast applications will also provide control of foliage feeding insects; however, control will not be achieved until the product has been taken up by the plant roots and translocated to the area where the insects are feeding.

APPLICATION RATES FOR FOLIAR APPLICATION

ORNAMENTALS	
PEST	APPLICATION RATE
Aphids Caterpillars Japanese beetles Leafhoppers Mealy bugs Whiteflies	2 oz of product per 100 gals (0.156 lb ai/A)
SPECIAL INSTRUCTIONS AND RESTRICTIONS	
<ul style="list-style-type: none"> Do not apply more than a total of 12.8 oz of ARENA 50 WDG (0.4 lbs active ingredient clothianidin) per acre per season. Uniformly apply the spray solution to the point of drip. Reapply as needed but do not exceed a total of 12.8 oz of Arena 50 WDG (0.4 lbs. active ingredient clothianidin) per acre per season. The amount of spray solution needed per acre will depend on the ornamental size and the density of the leaf canopy. 	

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NON-BEARING FRUIT, INCLUDING APPLES AND PEARS, AND NUT TREES (IN LANDSCAPES WHICH ARE NOT INTENDED FOR USE IN COMMERCIAL PRODUCTION)

ARENA 50 WDG should be applied when threshold populations are observed. Do not wait until large insect populations have been established. Apply ARENA 50 WDG in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for optimum control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.

RECOMMENDED APPLICATION RATES (POST-BLOOM APPLICATIONS)

PEST	APPLICATION RATE	
Aphids	0.75-1.6 oz	3.0 – 6.4
Leafhoppers	per 100 gallons	oz
Plum curculio		per acre*
Apple maggot	(0.023 -0.05 lbs ai	
Codling moth ¹	per 100 gallons)	(0.1-0.2 lbs
Oriental fruit moth ¹		ai/acre)
Spotted tentiform		
leafminers ²		
Western tentiform leafminers ²		
Oblique-banded leafrollers (suppression) ²		

SPECIAL INSTRUCTIONS AND RESTRICTIONS

- Non bearing fruit, including apples and pears, and nut trees in landscapes are only for ornamental use. **FRUITS FROM THESE TREES ARE NOT TO BE USED AS FOOD AT ANY TIME.**
- *The amount of ARENA 50 WDG per acre will depend on tree size, pest pressure and the volume of foliage present. The rate of water carrier per acre is based on a standard of 400 gallons of dilute spray per acre for large trees.
- Do not apply more than 6.4 oz of ARENA 50 WDG (0.2 lb active ingredient) per acre per season.
- ¹To control Codling moth and Oriental fruit moth, apply ARENA 50 WDG in a program of rotational sprays with other labeled insecticides. When using the 3 oz rate of ARENA 50 WDG to control Codling moth and/or Oriental fruit moth, do not apply treatments less than a 14 day interval.
- Apply ARENA 50 WDG in a full coverage spray to the point of drip. The spray volume will depend on tree size and density of the canopy. Repeat applications as needed to maintain control but do not apply more often than every 10 days.
- ²For optimum control of Leafminers and Leafrollers, make the first application as soon as pollination is complete and bees are no longer present. Repeat application as necessary to maintain control. A single application may result in suppression only.
- Do not apply treatments less than 10 days apart.
- Do not apply ARENA 50 WDG through any type of irrigation system.

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STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a dry place away from excessive heat. Do not store near food or feed. Store in original container only. To close package, replace and tighten cap to form an airtight seal.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or (if allowed by State and local authorities) by burning. If burned, stay out of smoke.

CONDITIONS OF SALE

1. Arysta LifeScience North America Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the Directions for Use under normal conditions of use.
2. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Arysta LifeScience. **ARYSTA LIFESCIENCE DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SELLER'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. ARYSTA LIFESCIENCE DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.**
3. Critical and unforeseeable factors beyond Arysta LifeScience's control prevent Arysta LifeScience from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which the product is applied, lack of complete control, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit for the use stated on the label and even though label directions are followed. Except as stated in 1 above, Buyer and User acknowledge and assume all risks and liabilities resulting from handling, storage, and use of this product.

ARENA is a registered trademark of Arysta LifeScience North America Corporation.