

59639-152

11/03/2010

1/62



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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

NOV 03 2010

Ms. Sue-Chi Shen
Valent U.S. A. Corporation
1600 Riviera Ave., Suite 200
Walnut Creek, CA 94596-8025

Subject: Amended Label to Add Trunk Spray Application to Ornamental Trees
Arena 50 WDG Insecticide
EPA Reg. No. 59639-152
Your Submission date, February 12, 2010

Dear Ms. Shen:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended is acceptable. A stamped copy is enclosed for your records. Submit one copy of your final printed labeling before you release the product for shipment. If there are questions call Dani Daniel at 703 305-5409 or electronically at daniel.dani@epa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Venus Eagle".

Venus Eagle
Product Manager (01)
Insecticide-Rodenticide Branch
Registration Division (7505P)



GROUP 4A INSECTICIDE

[Master Label is comprised of a Sub-Label 1 and Sub-Label 2]

ARENA[®] 50 WDG

INSECTICIDE

FOR CONTROL OF LISTED SUCKING AND CHEWING INSECTS INFESTING COTTON, CRANBERRY (LOW-GROWING BERRY, EXCEPT STRAWBERRY), FIG, FRUITING VEGETABLES (INCLUDING CUCURBITS), GRAPE, LEAFY VEGETABLES (INCLUDING BRASSICA VEGETABLES), PEACH, POME FRUIT, POMEGRANATE, SOYBEAN, TOBACCO, TREE NUTS AND TUBEROUS AND CORM VEGETABLES (INCLUDING POTATO AND SWEET POTATO)

FOR FOLIAR AND SYSTEMIC CONTROL OF LISTED INSECTS IN PRODUCTION GREENHOUSES, LATH AND SHADEHOUSES, FIELD NURSERIES, COMMERCIAL AND RESIDENTIAL LANDSCAPES AND INTERIORSAPES, NON-BEARING FRUIT AND NUT TREES, RESIDENTIAL APPLE AND PEAR TREES, TURFGRASS AND OTHER SITES WHERE PLANTS ARE GROWN FOR ORNAMENTAL, AESTHETIC AND CLIMATE MODIFICATION PURPOSES

Active Ingredient	By wt
*Clothianidin	50.0%
Other 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

See back panel for additional precautionary statements.

EPA Reg. No. 59639-152
EPA Est. No. _____

NET WEIGHT

ACCEPTED
NOV 03 2010
Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended, for the
pesticide registered under:

EPA. Reg. No: 59639-152

[Sub-Label 1]
ARENA[®] 50 WDG
INSECTICIDE

**FOR CONTROL OF LISTED SUCKING AND CHEWING INSECTS INFESTING
COTTON, CRANBERRY (LOW-GROWING BERRY EXCEPT STRAWBERRY), FIG,
FRUITING VEGETABLES (INCLUDING CUCURBITS), GRAPE, LEAFY
VEGETABLES (INCLUDING BRASSICA VEGETABLES), PEACH, POME FRUIT,
POMEGRANATE, SOYBEAN, TOBACCO, TREE NUTS AND TUBEROUS AND
CORM VEGETABLES (INCLUDING POTATO AND SWEET POTATO)**



GROUP 4A INSECTICIDE

[Bracketed text is editorial notes]

ARENA[®] 50 WDG

INSECTICIDE

FOR CONTROL OF LISTED SUCKING AND CHEWING INSECTS INFESTING COTTON, CRANBERRY (LOW-GROWING BERRY, EXCEPT STRAWBERRY), FIG, FRUITING VEGETABLES (INCLUDING CUCURBITS), GRAPE, LEAFY VEGETABLES (INCLUDING BRASSICA VEGETABLES), PEACH, POME FRUIT, POMEGRANATE, SOYBEAN, TOBACCO, TREE NUTS AND TUBEROUS AND CORM VEGETABLES (INCLUDING POTATO AND SWEET POTATO)

Active Ingredient	By wt
*Clothianidin	50.0%
Other 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

See back panel for additional precautionary statements.

EPA Reg. No. 59639-152
EPA Est. No. _____

ACCEPTED
NOV 03 2010

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

NET WEIGHT

EPA. Reg. No: 59639-152

**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.

FIRST AID

- 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 swallowed:**
 - 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 poison control center or doctor.
 - Do not give anything by mouth to an unconscious person.
- If on skin or clothing:**
 - 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:**
 - 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.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **800-892-0099** for emergency medical treatment information.

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, shoes and socks 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 there are no such instructions for washables 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:

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.

In the State of Florida: The properties of this chemical suggest it may leach into ground water if used in areas where soils are permeable and where the water table is very shallow. Do not apply within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries or commercial fish farm ponds.

This product is toxic to bees exposed to treatment and for more than 5 days following treatment. Do not apply this product to blooming, pollen-shedding, or nectar-producing parts of plants if bees may forage on plants during this time period.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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

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 and shoes, and chemical-resistant gloves made of any waterproof material.

8/62

**DISCLAIMER, RISKS OF USING THIS PRODUCT,
LIMITED WARRANTY
AND LIMITATION OF LIABILITY**

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

To the fullest extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, to the extent allowed by applicable law. Read and follow the entire label of each product to be used in the tank mix with this product.

RESISTANCE MANAGEMENT

Arena[®] 50 WDG Insecticide contains clothianidin, which is classified in the Group 4A of insecticide classes. Insect biotypes that have developed insensitivity to Group 4A (neonicotinoid) insecticides can eventually dominate the insect population in the same field. That is most likely to happen when Group 4A 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 Insecticide or other Group 4A insecticides.

To delay insecticide resistance consider:

- Avoiding the consecutive use of *Arena* 50 WDG Insecticide or other Group 4A insecticides that have a similar target site of action on the same insect species and/or insect species inadvertently exposed to the applications (non-target pests).
- Using tank mixtures or premixes with insecticides from a different class of chemistry, which must be registered products for the same commodity and use pattern, with different sites of action can help to reduce the generation of resistance.
- Do not make foliar applications of neonicotinoid insecticides (Group 4A) after soil applications of *Arena* 50 WDG Insecticide.
- Utilizing a comprehensive Integrated Pest Management (IPM) program while controlling insect pests.
- When possible screen treated insect populations for insensitivity to Group 4A insecticides.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for insecticide resistance management or IPM recommendations for the specific site and resistant pest problems.

For further information or to report a suspected resistance, you may contact Valent U.S.A. Corporation at 800-682-5368.

USE INFORMATION

Arena 50 WDG Insecticide is a broad spectrum insect control product, for control of a wide spectrum of listed insects infesting cotton, cranberry (low-growing berry, except strawberry), fig, fruiting vegetables (including cucurbits), grapes, leafy vegetables (including brassica vegetables), peach, pome fruit, pomegranate, soybean, tobacco, tree nuts and tuberous and corm vegetables (including potato and sweet potato). When applied as directed, *Arena* 50 WDG Insecticide provides excellent residual insect control.

RESTRICTIONS

- Regardless of formulation or type of application (seed treatment, soil or foliar), do not apply more than a total of 0.2 lb clothianidin per acre per season for all crops.
- 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.
- Do not apply by air.

- Do not incorporate an adjuvant with this product on almond, cotton, cranberry (low-growing berry except strawberry), fruiting vegetables (including cucurbits), leafy vegetables (including brassica vegetables) and peach.

ROTATIONAL CROP PLANT-BACK INTERVALS				
Crops Planted	Immediate Plant-Back	30-day Plant-Back	8 Month Plant-Back	12 Month Plant-Back
Cotton, Fruiting Vegetables (including Cucurbits), Leafy Vegetables (including Brassica Vegetables), Soybean and Tuberous and Corn Vegetables	Cereal Grains (except Rice), Cotton, Fruiting Vegetables (including Cucurbits), Leafy Vegetables (including Brassica Vegetables), Soybean, Bulb Vegetables, Root and Tuber Vegetables, Rapeseed, Sorghum, Canola, Corn (Field, Pop and Sweet)	Dry Beans, Grasses, Non-grass Animal Feeds, Rice	Sugarcane	Any crops without an earlier plant-back interval

PLANT TOLERANCE

Neither the manufacturer nor the seller has determined whether or not *Arena 50 WDG* Insecticide can be used safely on cultivars of plants registered for use. *Arena 50 WDG* Insecticide 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* Insecticide in a manner inconsistent with its labeling.

Arena 50 WDG Insecticide 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. Conduct a spray mix compatibility and phytotoxicity trial under local conditions to ensure compatibility prior to any large scale use.

MIXING INSTRUCTIONS

1. Begin with clean equipment.
2. Add sufficient clean water to the spray tank for 1/2 of the mix load.
3. Start tank agitation.

4. Add and properly suspend the necessary amount of *Arena* 50 WDG Insecticide according to established tank mix instructions. Agitate to ensure thorough mixing while adding the remaining required water. A high quality wetting agent or other spray adjuvant, approved for use on your crop, may be added to spray solutions according to the manufacturer's use instructions. *Arena* 50 WDG Insecticide must be properly suspended and diluted prior to the addition of any adjuvant. Consult adjuvant label or manufacturer for crop tolerance and safety information when used with this product.
5. Maintain agitation during mixing and application.
6. Apply with properly calibrated spray equipment.

SPRAY 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.

Applicator is responsible for employing practices that will minimize spray drift at the application site. 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 must be observed.

APPLICATION PROCEDURES

Foliar Application

Select spray nozzles which will provide accurate and uniform spray deposition. Use spray nozzles which provide medium sized droplets and reduce drift. To help insure accuracy, calibrate sprayer before each use. For information on spray equipment and calibration, consult nozzle manufacturers and/or State and County Extension Service.

Apply *Arena* 50 WDG Insecticide using sufficient water volume to provide thorough and uniform coverage. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. The use of a spray adjuvant may improve spray coverage. Do not make applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

Application Through Irrigation Systems (Chemigation)

Arena 50 WDG Insecticide alone or in combination with other products which are registered for application through sprinkler irrigation may be applied through irrigation systems. Apply this product only through micro-irrigation (individual spaghetti tube), drip irrigation, overhead irrigation or motorized calibrated irrigation equipment. Do not apply through any other type of irrigation system. Lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about calibration, contact your State Extension Service specialist, equipment manufacturer or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments.

Using Water from Public Water Systems

- Do not apply *Arena 50 WDG Insecticide* through any irrigation system physically connected to a public water system.

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days per year. *Arena 50 WDG Insecticide* may be applied through irrigation systems which may be supplied by a public water system only if the water from the public water system is 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 to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Any irrigation system using water supplied from a public water system must also meet the following requirements:

Operating Instructions for All Specified Types of Irrigation Systems

1. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, contact your State Extension Service specialist, equipment manufacturer or other experts.
2. 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.
3. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
4. 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.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
6. 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.
7. 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.
8. Do not apply when wind speed favors drift beyond the area intended.

Calibration and Application Instructions

Apply *Arena 50 WDG Insecticide* under the schedule specified in the specific crop use recommendations, not according to the irrigation schedule, unless the events coincide. In general, set the equipment to apply the minimum amount of water per acre. Run the system at 86 to 90% of the manufacturer's maximum rated travel speed.

The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler irrigation equipment. Check with state and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler irrigation equipment.

Center Pivot Irrigation Equipment

1. Use only drive systems that provide uniform water distribution.
2. Do not use end guns when chemigating *Arena 50 WDG Insecticide* through center pivot systems because of non-uniform application.
3. Plug the first nozzle closest to the well head to protect the water source.
4. Determine the size of the area to be treated.
5. Determine the time required to apply 0.1 to 0.25 inches of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. Run the system at 80 to 95% of the manufacturer's rated maximum travel speed.
6. Using water, determine the injection pump output when operated at normal line pressure.
7. Determine the amount of *Arena 50 WDG Insecticide*, and any tank mix partners, required to treat the area covered by the irrigation system.
8. Add the required amount of *Arena 50 WDG Insecticide*, and any tank mix partners, and sufficient water to meet the injection time requirements to the solution tanks. (See "Mixing Instructions" section of this label.)
9. Make sure the system is fully charged with water before starting injection of the *Arena 50 WDG Insecticide* solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
10. Maintain constant agitation in the solution tank during the injection period.
11. Inject the specified amount of *Arena 50 WDG Insecticide* per acre continuously for one complete revolution of the system.
12. Stop the injection equipment after treatment is complete. Continue to operate the system until the *Arena 50 WDG Insecticide* solution has cleared all of the sprinkler heads.
13. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water.

Solid Set, Hand Move and Moving Wheel Irrigation Equipment

1. Determine the acreage covered by the sprinklers.
2. Fill injector solution tank with plain water and calibrate the flow rate of the system to deliver the contents of the tank over a 20 to 40 minute time interval.
3. Determine the amount of *Arena 50 WDG* Insecticide required to treat the area covered by the irrigation system.
4. Add the required amount of *Arena 50 WDG* Insecticide, and any other tank mix partners, into the same quantity of water used to calibrate the injection period. (See "Mixing Instructions" section of this label.)
5. Operate the system at the same pressure and time interval established during the calibration.
6. Inject specified amount of *Arena 50 WDG* Insecticide per acre for either a 20 to 40 minute period at the end of a regular irrigation set, or as a 20 to 40 minute injection as a separate application not associated with a regular irrigation to maximize retention of the insecticide by the foliage.
7. Stop injection equipment after treatment is completed. Continue to operate the system until the *Arena 50 WDG* Insecticide solution has cleared the last sprinkler head. To ensure lines are flushed and free from remaining pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

BRASSICA (COLE) LEAFY VEGETABLES Broccoli; Broccoli Raab (Rapini); Brussels Sprout; Cabbage; Cauliflower; Cavalo Broccolo; Chinese Broccoli (Gai Lon); Chinese Cabbage (Bok Choy and Napa); Chinese Mustard Cabbage; Collards; Kale; Kohlrabi; Mizuna; Mustard Greens; Mustard Spinach; Rape Greens; Turnip Greens		
FOLIAR APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Aphids Flea Beetles Harlequin Bug Leafhoppers Stinkbugs Whiteflies (suppression)	1.6 to 3.2 oz/A (0.05 to 0.1 lb ai/A)	Apply <i>Arena</i> 50 WDG Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established. Choose lower rate for light infestation and the higher rate for heavy infestation. Apply <i>Arena</i> 50 WDG Insecticide 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.
<ul style="list-style-type: none"> Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena</i> 50 WDG Insecticide per acre per season. Do not incorporate an adjuvant with this product. Do not apply treatments less than 10 days apart. Do not apply within 7 days of harvest. <i>Arena</i> 50 WDG Insecticide must not be applied during bloom or if bees are actively foraging. 		

Brassica (Cole) Leafy Vegetables continued

SOIL APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Aphids Flea Beetles Harlequin Bug Leafhoppers Leafminers (suppression) Thrips Whiteflies (suppression)	4.8 to 6.4 oz/A (0.15 to 0.2 lb ai/A)	Make one soil application at specified dose in sufficient carrier volume to insure uniform application in one of the following methods: <ol style="list-style-type: none"> 1. In a narrow band centered on the plant row in the bedding operation just prior to planting. 2. In-furrow spray at planting directed on or below seed. 3. As a sidedress to both sides of the row. 4. Post-seeding drench or transplant water drench. 5. Chemigation into root zone through drip, trickle or micro-sprinkler or similar equipment.
<ul style="list-style-type: none"> • Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena</i> 50 WDG Insecticide per acre per season. • Apply <i>Arena</i> 50 WDG Insecticide at planting. • <i>Arena</i> 50 WDG Insecticide must not be applied during bloom or if bees are actively foraging. 		

COTTON		
FOLIAR APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Aphids Lygus Stinkbugs Whiteflies (suppression)	1.6 to 2.1 oz/A (0.05 to 0.067 lb ai/A)	Apply <i>Arena</i> 50 WDG Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established. Apply <i>Arena</i> 50 WDG Insecticide in sufficient water to ensure uniform and thorough coverage of foliage.
<ul style="list-style-type: none"> • Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena</i> 50 WDG Insecticide per acre per season. • Do not incorporate an adjuvant with this product. • Do not apply treatments less than 7 days apart. • Do not apply within 21 days of harvest. 		

CRANBERRY (LOW-GROWING BERRY EXCEPT STRAWBERRY) Bearberry, Bilberry, Cloudberry, Cranberry, Lingonberry, Lowbush Blueberry Muntries, Partridgeberry and varieties, and/or cultivars of these		
FOLIAR POST BLOOM APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rate	Special Instructions
Blackheaded Fireworm Cranberry Fruitworm Cranberry Weevil Flea Beetles Sparganothis Fruitworm Tipworm	2.1 oz/A (0.067 lb ai/A)	Apply <i>Arena</i> 50 WDG Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established Apply <i>Arena</i> 50 WDG Insecticide in sufficient water to ensure uniform and thorough coverage of foliage
<ul style="list-style-type: none"> Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena</i> 50 WDG Insecticide per acre per season. Do not incorporate an adjuvant with this product. Do not apply treatments less than 7 days apart. Do not apply within 21 days of harvest. 		
SOIL POST BLOOM APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Cranberry Weevil Flea Beetles Tipworm	6.4 oz/A (0.2 lb ai/A)	Make one post bloom soil application as indicated below. Irrigate with a minimum of 0.2 inch of water within 2 hours of application (if rainfall occurs within the 2 hours irrigation may not be necessary). Apply specified dose to soil by one of the following methods: <ol style="list-style-type: none"> As a ground application soil spray directed to the root and crown area. As a chemigation application.
<ul style="list-style-type: none"> Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena</i> 50 WDG Insecticide per acre per season. Do not apply within 21 days of harvest. 		

CUCURBIT VEGETABLES

Acorn Squash, Balsam Apple, Balsam Pear, Bitter Melon, Butternut Squash, Calabaza, Cantaloupe, Casaba, Chayote, Chinese Cucumber, Chinese Okra, Chinese Waxgourd (Chinese Preserving Melon), Citron Melon, Crenshaw Melon, Crookneck Squash, Cucumber, Cucuzza, Edible Gourd, Gherkin, Golden Pershaw Melon, Hechima, Honey Balls, Honeydew Melon, Hubbard Squash, Hyotan, Mango Melon, *Momordica* spp., Muskmelon, Persian Melon, Pineapple Melon, Pumpkin, Santa Claus Melon, Scallop Squash, Snake Melon, Spaghetti Squash, Straightneck Squash, Summer Squash, True Cantaloupe, Vegetable Marrow, Watermelon, Winter Squash, Zucchini

FOLIAR APPLICATION

Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Aphids Cucumber Beetles Flea Beetles Leafhoppers Leafminers (suppression) Squash Bug Stinkbugs Whiteflies (suppression)	1.6 to 3.2 oz/A (0.05 to 0.1 lb ai/A)	Apply <i>Arena</i> 50 WDG Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established. Choose lower rate for light infestation and the higher rate for heavy infestation. Apply <i>Arena</i> 50 WDG Insecticide 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.

- Do not apply more than 6.4 oz (0.2 lb ai) of *Arena* 50 WDG Insecticide per acre per season.
- Do not incorporate an adjuvant with this product.
- Do not apply treatments less than 10 days apart.
- Do not apply within 7 days of harvest.
- *Arena* 50 WDG Insecticide must not be applied during bloom or if bees are actively foraging.

Cucurbit Vegetables continued

SOIL APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Aphids Cucumber Beetles Flea Beetles Leafhoppers Leafminers (suppression) Whiteflies (suppression)	4.8 to 6.4 oz/A (0.15 to 0.2 lb ai/A)	Make one soil application at specified dose in sufficient carrier volume to insure uniform application in one of the following methods: <ol style="list-style-type: none"> 1. In a narrow band centered on the plant row in the bedding operation just prior to planting. 2. In-furrow spray at planting directed on or below seed. 3. As a sidedress to both sides of the row. 4. Post-seeding drench or transplant water drench. 5. Chemigation into root zone through drip, trickle or micro-sprinkler or similar equipment.
<ul style="list-style-type: none"> • Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena</i> 50 WDG Insecticide per acre per season. • Apply <i>Arena</i> 50 WDG Insecticide at planting. • <i>Arena</i> 50 WDG Insecticide must not be applied during bloom or if bees are actively foraging. 		

FIG		
FOLIAR POST BLOOM APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Dried Fruit Beetles Fig Scale	2.1 to 3.2 oz/A (0.067 to 0.1 lb ai/A)	<p>Apply <i>Arena</i> 50 WDG Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.</p> <p>The amount of <i>Arena</i> 50 WDG Insecticide per acre will depend on tree size and pest pressure.</p> <p>Choose lower rate for light infestation and/or small trees and the higher rate for heavy infestations and/or larger trees.</p> <p>Apply by ground 100 to 400 gallons per acre as a full coverage spray. Spray volume will depend on tree size and density of canopy.</p> <p>Repeat applications as needed to maintain control but do not apply more often than every 14 days. A single application may result in suppression only.</p>
<ul style="list-style-type: none"> • Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena</i> 50 WDG Insecticide per season. • Do not apply treatments less than 14 days apart. • Do not apply within 7 days of harvest. • Do not feed or allow livestock to graze on cover crops from treated orchards. 		

FRUITING VEGETABLES (Except Cucurbits)		
Eggplant, Ground Cherry (<i>Physalis</i> spp.), Pepino, Peppers (including Bell Pepper, Chili Pepper, Cooking Pepper, Pimento, Sweet Pepper), Tomatillo, Tomato		
FOLIAR APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Aphids Colorado Potato Beetles Flea Beetles Leafhoppers Leafminers (suppression) Lygus Pepper Weevil Stinkbugs Whiteflies (suppression)	1.6 to 3.2 oz/A (0.05 to 0.1 lb ai/A)	Apply <i>Arena</i> 50 WDG Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established. Choose lower rate for light infestation and the higher rate for heavy infestation. For whiteflies use the higher rate. Apply <i>Arena</i> 50 WDG Insecticide 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.
<ul style="list-style-type: none"> Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena</i> 50 WDG Insecticide per acre per season. Do not incorporate an adjuvant with this product. Do not apply treatments less than 10 days apart. Do not apply within 7 days of harvest. In the State of Florida: Do not release the irrigation water from the treated area. 		

Fruiting Vegetables (Except Cucurbits) continued

SOIL APPLICATION		
Pests	<i>Arena 50 WDG</i> Insecticide Application Rates	Special Instructions
Aphids Colorado Potato Beetles Flea Beetles Leafhoppers Leafminers (suppression) Lygus Thrips (foliar feeding) Whiteflies (suppression)	4.8 to 6.4 oz/A (0.15 to 0.2 lb ai/A)	Make one soil application at specified dose in sufficient carrier volume to insure uniform application in one of the following methods: <ol style="list-style-type: none"> 1. In a narrow band centered on the plant row in the bedding operation just prior to planting. 2. In-furrow spray at planting directed on or below seed. 3. As a sidedress to both sides of the row. 4. Post-seeding drench or transplant water drench. 5. Chemigation into root zone through drip, trickle or micro-sprinkler or similar equipment.
Diseases Suppressed	<i>Arena 50 WDG</i> Insecticide Application Rate	
Tomato Spotted Wilt Virus (TSWV)	6.4 oz/A (0.2 lb ai/A)	
<ul style="list-style-type: none"> • Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena 50 WDG</i> Insecticide per acre per season. • Apply <i>Arena 50 WDG</i> Insecticide at planting. • In the State of Florida: Do not release the irrigation water from the treated area. 		

GRAPE		
FOLIAR APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Leafhoppers Grape Leaf Skeletonizers Japanese Beetles Multicolored Asian Lady Beetle	1.1 to 2.1 oz/A (0.033 to 0.067 lb ai/A)	Apply <i>Arena</i> 50 WDG Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established. Apply <i>Arena</i> 50 WDG Insecticide in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for optimum control!
Sharpshooters	2.1 to 3.2 oz/A (0.067 to 0.1 lb ai/A)	
Grape Berry Moth Grape Mealybug Vine Mealybug	3.2 oz/A (0.1 lb ai/A)	
<ul style="list-style-type: none"> Do not apply more than 6.4 oz (0.2 lb ai) <i>Arena</i> 50 WDG Insecticide per acre per season. Do not apply treatments less than 14 days apart. May be applied up to harvest (0 days PHI). 		

continued

GRAPE continued

SOIL APPLICATION		
Pests	Arena 50 WDG Insecticide Application Rates	Special Instructions
<p>Grape Mealybug Grape <i>Phylloxera</i> spp. (suppression) Leafhoppers Sharpshooters Vine Mealybug</p>	<p>3.2 to 6.4 oz/A (0.1 to 0.2 lb ai/A)</p>	<p>Apply <i>Arena 50 WDG</i> Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established. Apply specified rate in sufficient carrier volume to insure uniform application and incorporate into the soil using drip or trickle irrigation water.</p> <p>For Mealybug control, apply between bud break and pea-berry size.</p> <p>Make one soil application at specified dose in sufficient carrier volume to insure uniform application in one of the following methods:</p> <ol style="list-style-type: none"> 1. In a narrow band centered on the plant row in the bedding operation just prior to planting. 2. In-furrow spray at planting directed on or below seed. 3. As a sidedress to both sides of the row. 4. Post-seeding drench or transplant water drench. 5. Chemigation into root zone through drip, trickle or micro-sprinkler or similar equipment.
<ul style="list-style-type: none"> • Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena 50 WDG</i> Insecticide per acre per season. • Do not apply treatments less than 14 days apart. • Do not apply within 30 days of harvest. 		

LEAFY VEGETABLES (Except Brassica Vegetables)		
Amaranth (Chinese Spinach), Arugula (Roquette), Cardoon, Celery, Celtuce, Chervil, Chinese Celery, Chrysanthemum (Edible-leaved and Garland), Corn Salad, Cress (Garden and Upland), Dandelion, Dock (Sorrel), Endive (Escarole), Florence Fennel, Lettuce (Head and Leaf), Orach, Parsley, Purslane (Garden and Winter), Radicchio (Red Chicory), Rhubarb, Spinach, Spinach (New Zealand and Vine), Swiss Chard		
FOLIAR APPLICATION		
Pests	Arena 50 WDG Insecticide Application Rates	Special Instructions
Aphids Flea Beetles Leafhoppers Leafminers (suppression) Whiteflies (suppression)	1.6 to 3.2 oz/A (0.05 to 0.1 lb ai/A)	Apply <i>Arena 50 WDG</i> Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established. Choose lower rate for light infestation and the higher rate for heavy infestation. Apply <i>Arena 50 WDG</i> Insecticide 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.
<ul style="list-style-type: none"> • Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena 50 WDG</i> Insecticide per acre per season. • Do not incorporate an adjuvant with this product. • Do not apply treatments less than 10 days apart. • Do not apply within 7 days of harvest. 		

Leafy Vegetables (Except Brassica Vegetables) continued

SOIL APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Aphids Flea Beetles Leafhoppers Leafminers (suppression) Whiteflies (suppression)	4.8 to 6.4 oz/A (0.15 to 0.2 lb ai/A)	Make one soil application at specified dose in sufficient carrier volume to insure uniform application in one of the following methods: <ol style="list-style-type: none"> 1. In a narrow band centered on the plant row in the bedding operation just prior to planting. 2. In-furrow spray at planting directed on or below seed. 3. As a sidedress to both sides of the row. 4. Post-seeding drench or transplant water drench. 5. Chemigation into root zone through drip, trickle or micro-sprinkler or similar equipment.
<ul style="list-style-type: none"> • Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena</i> 50 WDG Insecticide per acre per season. • Apply <i>Arena</i> 50 WDG Insecticide at planting. 		

PEACH		
FOLIAR POST BLOOM APPLICATION		
Pests	Arena 50 WDG Insecticide Application Rates	Special Instructions
Aphids Leafhoppers	1.6 to 3.2 oz/A (0.05 to 0.1 lb ai/A)	Apply <i>Arena 50 WDG</i> Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.
Lygus Plum Curculio Scales Stinkbugs	3.2 oz/A (0.1 lb ai/A)	<p>Choose lower rate for light infestation and/or small trees and the higher rate for heavy infestations and/or larger trees.</p> <p>Apply <i>Arena 50 WDG</i> Insecticide in sufficient water to ensure uniform and thorough coverage of foliage. Spray volume will depend on tree size and density of canopy. Thorough coverage is required for optimum control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.</p> <p>Scale: Time applications to the crawler stage, treat each successive generation. Two applications on a 10- to 14-day interval may be required to achieve control.</p>
<ul style="list-style-type: none"> Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena 50 WDG</i> Insecticide per acre per season. Do not incorporate an adjuvant with this product. 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. 		

POME FRUIT		
Apple, Crabapple, Loquat, Mayhaw, Pear, Oriental Pear, Quince		
FOLIAR APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Aphids Leafhoppers	2.1 to 3.2 oz/A (0.067 to 0.1 lb ai/A)	Apply <i>Arena</i> 50 WDG Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.
Apple Maggot Leafminers Plum Curculio	3.2 oz/A (0.1 lb ai/A)	
Codling Moth* Lygus Oblique-banded Leafroller Oriental Fruit Moth Pear Psylla Scales Stinkbugs	3.2 to 6.4 oz/A (0.1 to 0.2 lb ai/A)	<p>The amount of <i>Arena</i> 50 WDG Insecticide per acre will depend on tree size and pest pressure. Choose lower rate for light infestation and/or small trees and the higher rate for heavy infestation and/or larger trees.</p> <p>Apply by ground in sufficient volume to obtain thorough coverage. Spray volume will depend on tree size and density of canopy.</p> <p>*For Codling Moth (First Generation): For control of first generation codling moth in areas with light pressure and suppression of first generation codling moth in areas of heavy infestations.</p> <p>Suppression only of second or third generation codling moth in any area.</p> <p>Scale: Time applications to the crawler stage, treat each successive generation. Two applications on a 10 to 14 day interval may be required to achieve control.</p>
<ul style="list-style-type: none"> • Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena</i> 50 WDG Insecticide per acre per season. • Do not apply within 7 days of harvest. • Do not feed or allow livestock to graze on cover crops from treated orchards. • <i>Arena</i> 50 WDG Insecticide must not be applied during bloom or if bees are actively foraging. 		

POMEGRANATE		
FOLIAR POST BLOOM APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Aphids Leafhoppers Mealybug Sharpshooters Whiteflies	2.1 to 3.2 oz/A (0.067 to 0.1 lb ai/A)	<p>Apply <i>Arena</i> 50 WDG Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.</p> <p>The amount of <i>Arena</i> 50 WDG Insecticide per acre will depend on tree size and pest pressure.</p> <p>Choose lower rate for light infestation and/or small trees and the higher rate for heavy infestations and/or larger trees.</p> <p>Apply by ground 100 to 400 gallons per acre as a full coverage spray. Spray volume will depend on tree size and density of canopy.</p> <p>Repeat applications as needed to maintain control but do not apply more often than every 14 days. A single application may result in suppression only.</p>
<ul style="list-style-type: none"> • Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena</i> 50 WDG Insecticide per season. • Do not apply treatments less than 14 days apart. • Do not apply within 7 days of harvest. • Do not feed or allow livestock to graze on cover crops from treated orchards. 		

SOYBEAN		
FOLIAR APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Aphids Bean Leaf Beetles Japanese Beetles Leafhoppers Lygus Stinkbugs Three Cornered Alfalfa Hopper Whiteflies (suppression)	1.6 to 2.1 oz/A (0.05 to 0.067 lb ai/A)	Apply <i>Arena</i> 50 WDG Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established. Apply <i>Arena</i> 50 WDG in sufficient water to ensure uniform and thorough coverage of foliage
<ul style="list-style-type: none"> • Do not apply foliar treatments less than 7 days apart. • Do not apply within 21 days of harvest. • Do not make foliar applications of <i>Arena</i> 50 WDG Insecticide in fields treated with a neonicotinoid insecticide seed treatment(s) within 45 days after planting. • Regardless of formulation or type of application (foliar or seed treatment), do not apply more than 0.2 lb ai of clothianidin per acre per season. • Do not graze or feed soybean forage and hay to livestock. 		

TOBACCO

TOBACCO		
FOLIAR APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Aphids Flea Beetles	1.6 to 2.1 oz/A (0.05 to 0.067 lb ai/A)	Apply <i>Arena</i> 50 WDG Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established. Make application 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. For suppression of budworms and hornworms, make the first application as soon as eggs hatch and repeat applications as necessary to maintain suppression.
Tobacco Budworm (suppression) Tobacco Hornworm (suppression)	2.1 oz/A (0.067 lb ai/A)	
<ul style="list-style-type: none"> • Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena</i> 50 WDG Insecticide per acre per season. • Do not apply treatments less than 7 days apart. • Do not apply within 14 days of harvest. 		

continued

TOBACCO continued

[Editorial Note: Do not print this table on container label] SOIL APPLICATION (In Transplanted Water Application or Tray, or Flat Drench Application)		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Flea Beetles	1.6 to 3.2 oz/A (0.05 to 0.0.1 lb ai/A)	<p><i>Arena</i> 50 WDG Insecticide must be mixed with water prior to application. Keep the <i>Arena</i> 50 WDG Insecticide solution agitated or mix regularly to prevent settling in the spray or transplant tank. Apply <i>Arena</i> 50 WDG Insecticide at the specified dosage to the soil in transplant water or by drench to trays or flats prior to transplanting. Water the plants in flats or trays by overhead irrigation to wash <i>Arena</i> 50 WDG Insecticide from foliage into the potting media. Failure to wash <i>Arena</i> 50 WDG Insecticide from foliage may result in a reduction of control.</p> <p>Soil applications may sometimes cause yellowing on the leaves present at the time of transplanting. This effect does not have any impact on plant growth and yields.</p>
Aphids Tobacco Budworm (suppression) Tobacco Hornworm (suppression)	3.2 oz/A (0.1 lb ai/A)	
<ul style="list-style-type: none"> • Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena</i> 50 WDG Insecticide per acre per season. • Do not apply within 14 days of harvest. 		

TREE NUTS		
Almond, Beech Nut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (Hazelnut), Hickory Nut, Macadamia Nut, Pecan, Walnut (Black and English)		
FOLIAR POST BLOOM APPLICATION		
Pests	<i>Arena</i> 50 WDG Insecticide Application Rates	Special Instructions
Aphids Leafhoppers Pecan Nut Casebearer Pecan Weevil Whiteflies (suppression)	1.6 to 3.2 oz/A (0.05 to 0.1 lb ai/A)	Apply <i>Arena</i> 50 WDG Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established. Choose lower rate for light infestation and/or small trees and the higher rate for heavy infestation and/or larger trees.
Hickory Shuckworm Lygus Mealybugs Scales Stinkbugs	3.2 oz/A (0.1 lb ai/A)	Apply <i>Arena</i> 50 WDG Insecticide in sufficient water to ensure uniform and thorough coverage of foliage. Spray volume will depend on tree size and density of canopy. Thorough coverage is required for optimum control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre. Scale: Time applications to the crawler stage, treat each successive generation. Two applications on a 10 to 14 day interval may be required to achieve control.
<ul style="list-style-type: none"> • Do not apply more than 6.4 oz (0.2 lb ai) of <i>Arena</i> 50 WDG Insecticide per acre per season. • Do not incorporate an adjuvant with this product on almond. • Do not apply treatments less than 10 days apart. • Do not apply within 21 days of harvest. • Do not feed or allow livestock to graze on cover crops from treated orchards. • <i>Arena</i> 50 WDG Insecticide must not be applied during bloom or if bees are actively foraging. 		

TUBEROUS AND CORM VEGETABLES

Arrachcha, arrowroot, arthichoke, (including Chinese and Jerusalem), edible canna, cassava (including bitter and sweet), root chayote, chufa, dasheen, ginger, leren, potato, sweet potato, tanier, turmeric, and yam

FOLIAR APPLICATION

Pests	<i>Arena 50 WDG</i> Application Rates	Special Instructions
Aphids Colorado Potato Beetles Flea Beetles Leafhoppers	1.1 to 1.6 oz/A (0.033 to 0.05 lb ai/A)	Apply <i>Arena 50 WDG</i> Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.
<ul style="list-style-type: none"> Do not apply treatments less than 7 days apart. Do not apply within 14 days of harvest. Regardless of formulation or type of application (seed piece, soil or foliar), do not apply more than a total of 0.2 lbs active ingredient clothianidin per acre per season. 		

POTATO

IN-FURROW OR SIDE DRESS APPLICATION

Pests	<i>Arena 50 WDG</i> Insecticide Application Rates	Special Instructions
Aphids Colorado Potato Beetles Exotic White Grub Flea Beetles Leafhoppers Potato Psyllids (suppression) Sweet Potato Weevil Wireworms	3.2 to 6.4 oz/A (0.1 to 0.2 lb ai/A)	Timing of Application: At planting or as a side-dress on both sides of the row at ground-crack during hilling. <ol style="list-style-type: none"> Apply specified rate in sufficient carrier volume to insure uniform application and incorporate into the soil using one of the following methods: In a narrow band centered on the plant row in the bedding operation just prior to planting. In-furrow spray at planting. Direct spray in the furrow on the seed pieces or potatoes. As a sidedress to both sides of the row or as a broadcast spray to the soil during hilling. Cover immediately with soil.
Diseases Suppressed	<i>Arena 50 WDG</i> Insecticide Application Rate	
Symptoms of: Potato Leafroll Virus (PLRV) Purple Top	6.4 oz/A (0.2 lb ai/A)	
<ul style="list-style-type: none"> Regardless of formulation or type of application (seed piece, soil or foliar), do not apply more than a total of 0.2 lbs active ingredient clothianidin per acre per season. 		

STORAGE AND 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.
Do not contaminate water, food or feed by storage or disposal.
For help with any spill, leak, fire or exposure involving this material, call day or night
(800) 892-0099.

PESTICIDE DISPOSAL

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

CONTAINER HANDLING

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available; otherwise dispose of in a sanitary landfill or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Copyright© 2010 by Valent U.S.A. Corporation

Arena is a registered trademark of Sumitomo Chemical Company, Ltd.

Manufactured for:
Valent U.S.A. Corporation
P.O. Box 8025
Walnut Creek, CA 94596-8025
(800) 682-5368

Made in U.S.A.

EPA Reg. No. 59639-152
EPA Est.

[Sub-Label 2]
ARENA® 50 WDG
INSECTICIDE

FOR USE ON PRODUCTION GREENHOUSES, LATH AND SHADEHOUSES, FIELD NURSERIES, COMMERCIAL AND RESIDENTIAL LANDSCAPES AND INTERIORSCAPES, NON-BEARING FRUIT AND NUT TREES, RESIDENTIAL APPLE AND PEAR TREES, TURFGRASS AND OTHER SITES WHERE PLANTS ARE GROWN FOR ORNAMENTAL, AESTHETIC AND CLIMATE MODIFICATION PURPOSES

[Sub-Label 2]



REDLINE COPY

GROUP 4A INSECTICIDE

ARENA[®] 50 WDG

INSECTICIDE

FOR FOLIAR AND SYSTEMIC CONTROL OF LISTED INSECTS IN PRODUCTION GREENHOUSES, LATH AND SHADEHOUSES, FIELD NURSERIES, COMMERCIAL AND RESIDENTIAL LANDSCAPES AND INTERIORSCAPES, NON-BEARING FRUIT AND NUT TREES, RESIDENTIAL APPLE AND PEAR TREES, TURFGRASS AND OTHER SITES WHERE PLANTS ARE GROWN FOR ORNAMENTAL, AESTHETIC AND CLIMATE MODIFICATION PURPOSES

Active Ingredient	By wt
*Clothianidin	50.0%
Other Ingredients	<u>50.0%</u>
Total	100.0%

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

KEEP OUT OF REACH OF CHILDREN

CAUTION

See back panel for additional precautionary statements.

EPA Reg. No. 59639-152
EPA Est. No. _____

NET WEIGHT

**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.

FIRST AID

- 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 swallowed:**
 - 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 poison control center or doctor.
 - Do not give anything by mouth to an unconscious person.
- If on skin or clothing:**
 - 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:**
 - 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.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **800-892-0099** for emergency medical treatment information.

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, shoes and socks 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 there are no such instructions for washables 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.

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/PPE 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 treatment and for more than 5 days following treatment. Do not apply this product to blooming, pollen-shedding, or nectar-producing parts of plants if bees may forage on plants during this time period.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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

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, shoes and socks, chemical-resistant gloves made of any waterproof material.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forest, nurseries, or greenhouses.

Keep children and pets off treated area until dry.

42/62

**DISCLAIMER, RISKS OF USING THIS PRODUCT,
LIMITED WARRANTY
AND LIMITATION OF LIABILITY**

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

To the fullest extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, to the extent allowed by applicable law. Read and follow the entire label of each product to be used in the tank mix with this product.

RESISTANCE MANAGEMENT

Arena® 50 WDG Insecticide contains a Group 4A insecticide. Insect biotypes with acquired resistance to Group 4A insecticides may eventually dominate the insect population if Group 4A 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 Insecticide or other Group 4A insecticides.

To delay insecticide resistance consider:

- Avoiding the consecutive use of *Arena* 50 WDG Insecticide or other Group 4A 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 Integrated Pest Management (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 or IPM recommendations for the specific site and resistant pest problems.

For further information or to report a suspected resistance, you may contact Valent U.S.A. Corporation at 800-682-5368.

USE INFORMATION

Arena 50 WDG Insecticide is a broad spectrum insecticide, for control of a wide spectrum of insects infesting turfgrass, ornamental plants, interior plantscapes and non-bearing fruit and nut trees (in landscapes). When applied as directed, *Arena* 50 WDG Insecticide provides excellent and long residual insect control.

RESTRICTIONS AND LIMITATIONS

- Do not use a foliar application of clothianidin (*Arena* 50 WDG Insecticide) following a soil application of clothianidin.
- Regardless of formulation or type of application (soil or foliar), do not apply more than a total of 0.4 lb Clothianidin per acre per season for turf, landscape, ornamentals and non-bearing fruits and nuts.
- 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.
- Do not apply by air.

PLANT TOLERANCE

Neither the manufacturer nor the seller has determined whether or not *Arena 50 WDG* Insecticide can be used safely on cultivars of plants registered for use. *Arena 50 WDG* Insecticide 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* Insecticide in a manner inconsistent with its labeling.

Arena 50 WDG Insecticide can be tank mixed. 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. Conduct a spray mix compatibility and phytotoxicity trial under local conditions to ensure compatibility prior to any large scale use.

MIXING INSTRUCTIONS

1. Begin with clean equipment.
2. Add sufficient clean water to the spray tank for 1/2 of the mix load.
3. Start tank agitation.
4. Add and properly suspend the necessary amount of *Arena 50 WDG* Insecticide before adding any other products. Agitate to ensure thorough mixing while adding the remaining required water. A high quality wetting agent or other spray adjuvant, approved for use on your crop, may be added to spray solutions according to the manufacturer's use instructions. Be sure to suspend and dilute *Arena 50 WDG* Insecticide properly prior to the addition of any adjuvant. Consult adjuvant label or manufacturer for crop tolerance and safety information when used with this product.
5. Maintain agitation during mixing and application.
6. Apply with properly calibrated spray equipment.

SPRAY 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.

APPLICATION PROCEDURES

Foliar Application

Select spray nozzles which will provide accurate and uniform spray deposition. Use spray nozzles which provide medium sized droplets and reduce drift. To help insure accuracy, calibrate sprayer before each use. For information on spray equipment and calibration, consult nozzle manufacturers and/or State and County Extension Service.

Apply *Arena 50 WDG* Insecticide using sufficient water volume to provide thorough and uniform coverage. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. The use of a spray adjuvant may improve spray coverage. Do not make applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

Application Through Irrigation Systems (Chemigation)

Arena 50 WDG Insecticide alone or in combination with other products which are registered for application through sprinkler irrigation may be applied through irrigation systems. Apply this product only through micro-irrigation (individual spaghetti tube), drip irrigation, overhead irrigation or motorized calibrated irrigation equipment. Do not apply through any other type of irrigation system. Lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about calibration, contact your State Extension Service specialist, equipment manufacturer or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments.

Using Water from Public Water Systems

- **Do not apply *Arena 50 WDG* Insecticide through any irrigation system physically connected to a public water system.**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days per year. *Arena 50 WDG* Insecticide may be applied through irrigation systems which may be supplied by a public water system only if the water from the public water system is 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 to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Any irrigation system using water supplied from a public water system must also meet the following requirements:

Operating Instructions for All Specified Types of Irrigation Systems

1. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, contact your State Extension Service specialist, equipment manufacturer or other experts.
2. 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.
3. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
4. 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.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
6. 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.
7. 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.
8. Do not apply when wind speed favors drift beyond the area intended.

Calibration and Application Instructions

Apply *Arena 50 WDG* Insecticide under the schedule specified in the specific crop use recommendations, not according to the irrigation schedule, unless the events coincide. In general, set the equipment to apply the minimum amount of water per acre. Run the system at 86 to 90% of the manufacturer's maximum rated travel speed.

The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler irrigation equipment. Check with state and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler irrigation equipment.

Center Pivot Irrigation Equipment

1. Use only drive systems that provide uniform water distribution.
2. Do not use end guns when chemigating *Arena 50 WDG* Insecticide through center pivot systems because of non-uniform application.
3. Plug the first nozzle closest to the well head to protect the water source.
4. Determine the size of the area to be treated.
5. Determine the time required to apply 0.1 to 0.25 inches of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. Run the system at 80 to 95% of the manufacturer's rated maximum travel speed.

6. Using water, determine the injection pump output when operated at normal line pressure.
7. Determine the amount of *Arena 50 WDG Insecticide*, and any tank mix partners, required to treat the area covered by the irrigation system.
8. Add the required amount of *Arena 50 WDG Insecticide*, and any tank mix partners, and sufficient water to meet the injection time requirements to the solution tanks. (See "Mixing Instructions" section of this label.)
9. Make sure the system is fully charged with water before starting injection of the *Arena 50 WDG Insecticide* solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
10. Maintain constant agitation in the solution tank during the injection period.
11. Inject the specified amount of *Arena 50 WDG Insecticide* per acre continuously for one complete revolution of the system.
12. Stop the injection equipment after treatment is complete. Continue to operate the system until the *Arena 50 WDG Insecticide* solution has cleared all of the sprinkler heads.
13. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water.

Solid Set, Hand Move and Moving Wheel Irrigation Equipment

1. Determine the acreage covered by the sprinklers.
2. Fill injector solution tank with plain water and calibrate the flow rate of the system to deliver the contents of the tank over a 20 to 40 minute time interval.
3. Determine the amount of *Arena 50 WDG Insecticide* required to treat the area covered by the irrigation system.
4. Add the required amount of *Arena 50 WDG Insecticide*, and any other tank mix partners, into the same quantity of water used to calibrate the injection period. (See "Mixing Instructions" section of this label.)
5. Operate the system at the same pressure and time interval established during the calibration.
6. Inject specified amount of *Arena 50 WDG Insecticide* per acre for either a 20 to 40 minute period at the end of a regular irrigation set, or as a 20 to 40 minute injection as a separate application not associated with a regular irrigation to maximize retention of the insecticide by the foliage.
7. Stop injection equipment after treatment is completed. Continue to operate the system until the *Arena 50 WDG Insecticide* solution has cleared the last sprinkler head. To ensure lines are flushed and free from remaining pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

ORNAMENTALS IN PRODUCTION GREENHOUSES AND FIELD NURSERIES

Arena 50 WDG Insecticide is for use on ornamentals in production greenhouses, lath and shadehouses and field nurseries. To assure optimum effectiveness, good spray coverage of the target plant is essential. *Arena 50 WDG Insecticide* can be applied as a foliar spray or broadcast spray, soil injection or soil drench. For optimum control, apply before anticipated pest infestation or early in the infestation cycle.

Apply *Arena 50 WDG Insecticide* when threshold populations are observed. Do not wait until population beyond threshold has been established. Apply *Arena 50 WDG Insecticide* in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for optimum control. To achieve adequate coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.

Apply at planting or after planting to established plants. On established plants, irrigate the treated area thoroughly but do not allow leaching and runout from containers for at least 7 days.

Choose lower rate for light infestations and/or smaller plants and higher rate for heavy infestations and/or larger plants.

RESTRICTIONS AND LIMITATIONS

- Do not apply more than a total of 12.8 oz (0.4 lb active ingredient clothianidin) of *Arena 50 WDG Insecticide* 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.
- If making broadcast applications, water in with enough irrigation or rainfall to move the product into the zone where insects are active.
- For drench applications, use enough water to move the product into the zone where the insects are active.

49/62

DRENCH APPLICATION* ON ORNAMENTALS IN PRODUCTION GREENHOUSE AND FIELD NURSERIES – CONTAINERIZED PLANTS				
PLANTS	PESTS	ARENA 50 WDG INSECTICIDE APPLICATION RATES	CONTAINER SIZE (inches)	AMOUNT OF SOLUTION (fl oz)
Ornamental Plants including: Bedding Plants Evergreens Flowering Plants Foliage Plants Ground Covers Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines Ornamental Trees Shrubs	Aphid	1 to 2 oz/100 gals	2 4 6 8	1 2 4 6
	Adelgids including: Hemlock Woolly Fungus Gnats (larvae) Glassy Wing Sharpshooters Lacebugs including: Azalea Lacebug Leaf Beetles Leafhoppers Leafminers (Dipteran) Including: Serpentine Leafminer Mealybugs including: Citrus Mealybug Long-tailed Mealybug Madeira Mealybug Obscure Mealybug Pink Hibiscus Mealybug Root Mealybug Psyllids including: Asian Citrus Psyllid Root Weevils (larvae and adults) including: Black Vine Weevil Soft Scale Thrips (suppression) Whiteflies (suppression) including: Giant Whitefly Greenhouse Whitefly Sweetpotato Whitefly White Grubs including: Asiatic Garden Beetle European Chafer Green June Beetle Japanese Beetle Northern Masked Chafer Oriental Beetle Southern Masked Chafer	1.5 to 2 oz/100 gals	<p>For larger pot sizes, use 4 fl oz of solution per 1 gallon of soil media.</p> <p>Mix the specified amount of product with a sufficient volume of water to evenly disperse the solution to the treated area. Do not water to the point of overflowing and do not leach for 7 days after application.</p>	

continued

**DRENCH APPLICATION* ON ORNAMENTALS
IN PRODUCTION GREENHOUSE AND FIELD NURSERIES – CONTAINERIZED PLANTS**
continued

*Mix the specified amount of product with a sufficient volume of water to evenly disperse the solution into pots and to thoroughly wet the planting medium, without resulting in overflow or leaching and the loss of product. When watering treated pots, do not water to the point of overflowing and do not leach for 7 days after application.

- Do not apply more than 12.8 oz (0.4 lb ai) *Arena* 50 WDG Insecticide per acre per season.

**FOLIAR APPLICATION ON ORNAMENTALS
IN PRODUCTION GREENHOUSES AND FIELD NURSERIES**

PLANTS	PESTS	ARENA 50 WDG INSECTICIDE APPLICATION RATES	SPECIAL INSTRUCTIONS
Evergreens Flowers Foliage Plants Ground Covers Interior Plantscapes Shrubs Trees (including non-bearing fruit and nut)	Aphids	0.63 to 1.26 oz (per 100 gals of water)	Uniformly apply the spray solution to the point of drip. Reapply as needed.
	Mealybugs Whiteflies (suppression)	0.9 to 1.26 oz (per 100 gals of water)	The amount of spray solution needed per acre will depend on the ornamental size and the density of the leaf canopy.

- Do not exceed a total of 12.8 oz (0.4 lbs active ingredient clothianidin of *Arena* 50 WDG) Insecticide per acre per season.

**SOIL APPLICATIONS IN PRODUCTION GREENHOUSE AND FIELD NURSERIES –
IN-GROUND PLANTS**

PLANTS	PESTS	ARENA 50 WDG INSECTICIDE APPLICATION RATES	DIRECTIONS
Ornamental Plants including: Bedding Plants Evergreens Flowering Plants Foliage Plants Ground Covers Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines Ornamental Trees Shrubs	Adelgids including: Hemlock Woolly Aphids Fungus Gnats (larvae) Glassy Wing Sharpshooters Lacebugs including: Azalea Lacebug Leaf Beetles Leafhoppers Leafminers (Dipteran) Including: Serpentine Leafminers Mealybugs including: Citrus Mealybug Long-tailed Mealybug Madeira Mealybug Obscure Mealybug Pink Hibiscus Mealybug Root Mealybug Psyllids including: Asian Citrus Psyllid Root Weevils (larvae and adults) including: Black Vine Weevil Soft Scales Thrips (suppression) Whiteflies (suppression) including: Giant Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly White Grubs including: Asiatic Garden Beetle European Chafer Green June Beetle Japanese Beetle Northern Masked Chafer Oriental Beetle Southern Masked Chafer	<p align="center">Shrubs</p> <p align="center">1.2 to 2.4 grams per foot of height</p> <p align="center">11.2 to 22.8 grams per 10 cumulative feet of height (0.38 to 0.78 oz per 10 cumulative feet of height)</p>	<p>Soil Drench: Mix required dose in water and uniformly apply to soil around base of shrub or tree. Pull back mulch before drenching. For optimal performance, apply at least 1 quart of dilute solution per foot of height. If lower drench volume is used, apply 1/2 inch of irrigation immediately after application to move product into root zone. Keep soil moist for at least 7 days.</p> <p>Soil Injection: Mix required dose in water and make at least four injections per shrub. For optimal performance, inject at least 1 quart of dilute solution per foot of height. Keep soil moist for at least 7 days.</p>
		<p align="center">Multi-Trunk Trees</p> <p align="center">1.2 to 4.8 grams per cumulative inch of trunk diameter at breast height (DBH)</p> <p align="center">11.2 to 48 grams per 10 cumulative inches of trunk diameter at breast height (DBH)</p> <p align="center">0.38 to 1.6 oz per 10 cumulative inches of trunk diameter at breast height</p> <p align="center">Single-Trunk Trees</p> <p align="center">1.2 to 4.8 grams per inch of trunk diameter at breast height (DBH)</p> <p align="center">11.2 to 48 grams per 10 inches of trunk diameter at breast height (DBH)</p> <p align="center">(0.38 to 1.6 oz per 10 inches of trunk diameter at breast height (DBH))</p>	<p>Soil Drench: Mix required dose in water and uniformly apply to soil around base of tree, directed at the root zone. Pull back plastic or mulch before drenching. For optimal performance, apply at least 2 quarts of dilute solution per inch of trunk diameter. If lower drench volume is used, apply 1/2 inch of irrigation immediately after application to move product into root zone. Keep soil moist for at least 7 days.</p> <p>Soil Injection: Mix required dose in water and make at least four injections per tree with a low-pressure applicator. Use same amount of solution per hole. Injections can be made using the following methods: Grid System - Space injections on a 2.5 ft center extending to drip line; Circle System - Make injections in concentric circles extending inward from drip line. Basal System - Space injections evenly around trunk no more than 12 inches out from the base. Keep soil moist for at least 7 days after application.</p>

continued

**SOIL APPLICATIONS IN PRODUCTION GREENHOUSE AND FIELD NURSERIES –
IN-GROUND PLANTS**

PLANTS	PESTS	ARENA 50 WDG INSECTICIDE APPLICATION RATES	DIRECTIONS
--------	-------	--	------------

Arena 50 WDG Insecticide is a systemic insecticide and must move to the area of the plant where the target pest is feeding. Control of pests may be delayed following an application for one or more weeks as *Arena* 50 WDG Insecticide moves to the feeding site. Factors such as plant size, soil type, and water demands will impact the time between application and obvious insect control.

RESTRICTION

- Do not apply more than 12.8 oz (04 lb ai) *Arena* 50 WDG Insecticide per acre per season.

Note: *Arena* 50 WDG Insecticide may be tank mixed or co-applied with other compatible insecticides. Please confirm product compatibility using the water volumes planned with a jar test prior to mixing up a large amount of material.

Ornamentals in Commercial and Residential Outdoor Landscape and Interior Plantscapes and other sites where plants are grown for Aesthetic and climate modification purposes.

Arena 50 WDG Insecticide 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, make applications prior to anticipated pest infestation.

Apply *Arena 50 WDG Insecticide* when threshold populations are observed. Do not wait until population beyond threshold has been established. Apply *Arena 50 WDG Insecticide* in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for optimum control. To achieve adequate coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.

Choose lower rate for light infestations and/or smaller plants and higher rate for heavy infestations and/or larger plants.

RESTRICTIONS AND LIMITATIONS

- Do not apply more than a total of 12.8 oz (0.4 lb active ingredient clothianidin) of *Arena 50 WDG Insecticide* per acre per season.
- Basal bark trunk or drench or broadcast applications will provide control of insects feeding on the plants, however, control will not be achieved until the product has been taken up by the plant vascular system and translocated to the area where the insects are feeding.
- If making broadcast applications, water in with enough irrigation or rainfall to move the product into the zone where insects are active.
- For drench applications, use enough water to move the product into the zone where the insects are active.

**FOLIAR APPLICATION ON ORNAMENTALS IN
OUTDOOR LANDSCAPES AND INTERIOR PLANTSCAPES**

PLANTS	PESTS	ARENA 50 WDG INSECTICIDE APPLICATION RATES (Per 100 Gals of Water)	SPECIAL INSTRUCTIONS
Bedding Plants Evergreens Flowering Plants Foliage Plants Ground Covers Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines Ornamental Trees Shrubs	Aphids	0.63 to 1.26 oz	Uniformly apply the spray solution to the point of drip. Reapply as needed. The amount of spray solution needed per acre will depend on the ornamental size and the density of the leaf canopy.
	Mealybugs Whiteflies	0.9 to 1.26 oz	

RESTRICTION

- Do not exceed a total of 12.8 oz (0.4 lbs active ingredient clothianidin) of *Arena* 50 WDG Insecticide per acre per season.

SOIL APPLICATIONS TO ORNAMENTALS IN OUTDOOR LANDSCAPES AND INTERIOR PLANTSCAPES

For systemic insect control on ornamental plants grown in-ground and outdoor landscapes (commercial, industrial, recreational and residential)

PLANTS	PESTS	ARENA 50 WDG APPLICATION RATES	DIRECTIONS
<p>Ornamental Plants including: Bedding Plants Evergreens Flowering Plants Foliage Plants Ground Covers Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines Ornamental Trees Shrubs</p>	<p>Aphids Adelgids including Hemlock Woolly Flatheaded Borers (excluding Emerald Ash Borer) Lacebugs Leaf Beetles Leafhoppers Mealybugs Psyllids Roundheaded Borers (excluding Asian Longhorned Beetle) Scales (Armored and Soft) Whiteflies White Grubs including: Asiatic Garden Beetle European Chafer Green June Beetle Japanese Beetle Northern Masked Chafer Oriental Beetle Southern Masked Chafer</p>	<p>Shrubs 1.2 to 2.4 grams per foot of height</p> <p>11.2 to 22.8 grams per 10 cumulative feet of height (0.38 to 0.78 oz per 10 cumulative feet of height)</p>	<p>Soil Drench: Mix required dose in water and uniformly apply to soil around base of shrub or tree. Pull back mulch before drenching. For optimal performance, apply at least 2 quarts of dilute solution per foot of height. If lower drench volume is used, apply 1/2 inch of irrigation immediately after application to move product into root zone. Keep soil moist for at least 7 days.</p> <p>Soil Injection: Mix required dose in water and make at least four injections per shrub. For optimal performance, inject at least 2 qts of dilute solution per foot of height. Keep soil moist for at least 7 days.</p>
		<p>Multi-Trunk Trees 1.2 to 4.8 grams per cumulative inch of trunk diameter at breast height (DBH)</p> <p>11.2 to 48 grams per 10 cumulative inches of trunk diameter at breast height (DBH)</p> <p>0.38 to 1.6 oz per 10 cumulative feet of trunk diameter at breast height</p> <p>Single-Trunk Trees 1.2 to 4.8 grams per inch of trunk diameter at breast height (DBH)</p> <p>11.2 to 48 grams per 10 inches of trunk diameter at breast height (DBH)</p> <p>(0.38 to 1.6 oz per 10 inches of trunk diameter at breast height (DBH))</p>	<p>Soil Drench: Mix required dose in water and uniformly apply to soil around base of tree, directed at the root zone. Pull back plastic or mulch before drenching. For optimal performance, apply at least 2 quarts of dilute solution per inch of trunk diameter. If lower drench volume is used, apply 1/2 inch of irrigation immediately after application to move product into root zone. Keep soil moist for at least 7 days.</p> <p>Soil Injection: Mix required dose in water and make at least four injections per tree with a low-pressure applicator. Use same amount of solution per hole. Injections can be made using the following methods: Grid System - Space injections on a 2.5 ft center extending to drip line. Circle System - Make injections in concentric circles extending inward from drip line. Basal System - Space injections evenly around trunk no more than 12 inches out from the base. Keep soil moist for at least 7 days after application.</p>

continued

SOIL APPLICATIONS TO ORNAMENTALS IN OUTDOOR LANDSCAPES AND INTERIOR PLANTSCAPES
 For systemic insect control on ornamental plants grown in-ground and outdoor landscapes (commercial, industrial, recreational and residential)

PLANTS	PESTS	ARENA 50 WDG INSECTICIDE APPLICATION RATES	DIRECTIONS
Ornamental Plants including: Bedding Plants Evergreens Flowering Plants Foliage Plants Ground Covers Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines Ornamental Trees Shrubs	Aphids Lacebugs Leaf Beetles Leafhoppers Mealybugs Psyllids Scales (Armored and Soft) Whiteflies White Grubs including: Asiatic Garden Beetle European Chafer Green June Beetle Japanese Beetle Northern Masked Chafer Oriental Beetle Southern Masked Chafer	Broadcast Rates for Plants Grown in Beds: 4.3 to 8.3 grams per 1,000 sq. ft (6.4 to 12.8 oz/A)	Make an application in such a manner as to maximize spray contact with soil. Use a sufficient water volume to incorporate the product into the soil, either during application or soon thereafter. Overhead irrigation immediately after application is recommended to move product off of plant foliage and to the soil surface.

Arena 50 WDG Insecticide is a systemic insecticide and must move to the area of the plant where the target pest is feeding. Control of pests may be delayed following an application for one or more weeks as *Arena 50 WDG* Insecticide moves to the feeding site. Factors such as plant size, soil type, and water demands will impact the time between application and obvious insect control.

RESTRICTION

- Do not apply more than 12.8 oz (0.4 lb ai) *Arena 50 WDG* Insecticide per acre per season.

Note: *Arena 50 WDG* Insecticide may be tank mixed or co-applied with other compatible insecticides. Please confirm product compatibility using the water volumes planned with a jar test prior to mixing up a large amount of material.

BASAL BARK TRUNK APPLICATION TO TREES

For systemic insect control in ornamental trees, interior plantscapes and outdoor landscapes (commercial, industrial, recreational and residential); when applied as a basal bark trunk application. Basal bark trunk application is defined as an application to the bottom 4 feet of a tree.

PLANTS	PESTS	ARENA 50 WDG INSECTICIDE APPLICATION RATES	SPECIAL INSTRUCTIONS
<p>Ornamental Plants including: Bedding Plants Evergreens Flowering Plants Foliage Plants Ground Covers Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines Ornamental Trees Shrubs</p>	<p>Aphids Adelgids including Hemlock Woolly Flatheaded Borers (excluding Emerald Ash Borer) Lacebugs Leaf Beetles Leafhoppers Mealybugs Mountain Pine Beetle (preflight treatment only) Psyllids Roundheaded Borers (excluding Asian Longhorned Beetle) Scales Whiteflies</p>	<p>Apply 0.75 to 2.2 grams per inch of tree diameter.</p> <p>Required concentration is 1.2 to 4.8 oz per gallon which will treat between 60 and 80 inches (depending on bark texture and thickness) of trunk diameter at breast height.</p> <p>Apply to trunk from soil level to 48 inches up the tree, to the point of runoff.</p>	<p>When applied on the trunk, <i>Arena 50 WDG Insecticide</i> is absorbed through the bark and into the vascular system, and then transported throughout the tree. Speed of control will be dependent on tree size, tree health, environmental conditions and how actively pests are feeding. In actively transpiring trees, control may be evident in as little as 3 to 4 weeks after application.</p> <p>Apply to bark on trunk and buttress roots from soil surface to 4 to 5 feet above the soil surface</p> <p>Adjust nozzle to uniformly distribute solution over the entire circumference of the tree trunk and buttress roots. Wet bark to just to the point of saturation and run off onto soil.</p> <p>Apply with a low volume applicator operated at 10 to 20 PSI to avoid tree damage, bounce back and off tree movement.</p> <p>For optimal control, apply to actively growing tree, and time application so that <i>Arena 50 WDG Insecticide</i> has had time to move to insect feeding sites of the target species.</p> <p>Bark penetration and insect control may be improved by mixing <i>Arena 50 WDG Insecticide</i> with an organo-silicone surfactant.</p> <p>Do not apply to wet bark, during rainfall or if rain is expected within 4 hours.</p> <p>For Mountain Pine Beetle Control, apply at least 3 weeks before expected peak flight.</p>

1 level teaspoon contains 3 grams and one cup (8 fl oz) contains 5 oz of *Arena 50 WDG Insecticide*.

Arena 50 WDG Insecticide is a systemic insecticide and must move to the area of the plant where the target pest is feeding. Control of pests may be delayed following an application for one or more weeks as *Arena 50 WDG Insecticide* moves to the feeding site. Factors such as plant size, soil type, and water demands will impact the time between application and obvious insect control.

Arena 50 WDG Insecticide may be tank mixed or co-applied with other compatible insecticides. Please confirm product compatibility using the water volumes planned with a jar test prior to mixing up a large amount of material.

RESIDENTIAL APPLE AND PEAR TREES
(Not for use in commercial production sites)
Post Bloom Application Only

Apply *Arena 50* WDG Insecticide when threshold populations are observed. Do not wait until population beyond threshold has been established. Apply *Arena 50* WDG Insecticide 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.

FOLIAR POST BLOOM APPLICATION RATES FOR USE ON RESIDENTIAL BEARING APPLE AND PEAR TREES

Crop	Pests	<i>Arena 50</i> WDG Insecticide Application Rates	Special Instructions
Residential bearing: Apple Crabapple Pear	Aphids Leafhoppers Apple Maggot Leafminers Plum Curculios Codling Moths Leafrollers (suppression) Oriental Fruit Moth Soft Scales Pear Psylla	2 to 3 oz per 100 gallons of spray solution or 4 to 6 oz/A (2 to 3 oz ai/A) Rates per 100 gallon assume a spray rate of 200 gallons per acre. Adjust <i>Arena 50</i> WDG Insecticide rate per 100 gallons so as not to exceed 6 oz <i>Arena 50</i> WDG Insecticide per acre.	Apply <i>Arena 50</i> WDG Insecticide applied when threshold populations are observed. Do not wait until large insect populations have been established. The amount of <i>Arena 50</i> WDG Insecticide required per acre will depend on tree size and pest pressure. Choose lower rate for light infestation and/or small trees, and the higher rate for heavy infestations and/or larger trees. Apply by ground in 200 gallons per acre as a full coverage spray. For optimum performance 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.

RESTRICTION

- Do not apply treatments less than ten (10) days apart.
- Do not apply within seven (7) days of harvest.
- Do not apply more than 6.4 oz (0.2 lb ai) of *Arena 50* WDG Insecticide per acre per season.
- Do not feed or allow livestock to graze on cover crops from treated orchards.
- Applications must be made post bloom.

**NON-BEARING FRUIT AND NUT TREES
(IN LANDSCAPES WHICH ARE NOT INTENDED FOR USE
IN COMMERCIAL PRODUCTION)**

Apply *Arena 50 WDG* Insecticide when threshold populations are observed. Do not wait until population beyond threshold has been established. Apply *Arena 50 WDG* Insecticide 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.

APPLICATION RATES (POST-BLOOM APPLICATIONS) ON NON-BEARING FRUIT AND NUT TREES

PESTS	ARENA 50 WDG INSECTICIDE APPLICATION RATES	SPECIAL INSTRUCTIONS
Aphids Apple Maggots Codling Moths Leafhoppers Plum Curculios Oblique-banded Leafrollers (suppression) Oriental Fruit Moths Spotted Tentiform Leafminers Western Tentiform Leafminers	2 to 3 oz per 100 gallons of spray solution or 4 to 6 oz/A (0.125 to 0.187 lb ai/A)	<p>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.</p> <p>The amount of <i>Arena 50 WDG</i> insecticide 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.</p> <p>For Control of Codling Moth and Oriental Fruit Moth: apply <i>Arena 50 WDG</i> Insecticide in a program of rotational sprays with other labeled insecticides. When using the 3 oz rate of <i>Arena 50 WDG</i> Insecticide to control codling moth and/or oriental fruit moth, do not apply treatments less than a 14 day interval.</p> <p>Apply <i>Arena 50 WDG</i> Insecticide in a full coverage spray in 200 gallons per acre 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.</p> <p>For 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</p>

RESTRICTIONS

- Do not apply more than 6.4 oz (0.2 lb ai) of *Arena 50 WDG* Insecticide per acre per season.
- Do not apply treatments less than 10 days apart.
- Do not harvest or consume fruits or nuts from trees.

TURFGRASS

Arena 50 WDG Insecticide can be used as directed on grass grown in industrial, commercial and residential landscapes including, airports, athletic fields, cemeteries, commercial sod farms, golf courses, home lawns, parks and playgrounds.

Arena 50 WDG Insecticide has sufficient residual activity to provide high levels of control when applications are made proceeding or during the egg laying activity of the target pests. The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Follow application with sufficient irrigation or rainfall to move the active ingredient through the thatch.

Arena 50 WDG Insecticide can be applied to turf at 6.4 to 12.8 oz per acre. The rate is dependent on the target pest(s), their stage of development and the desired length of control. 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). When targeting multiple pests, make application to earliest egg lay or adult flight. The high end of the rate range may be needed if extended control of secondary pests are desired.

Apply *Arena 50 WDG Insecticide* in sufficient water volume (1 to 5 gallons per 1,000 sq ft) 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 that 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.

APPLICATION ON TURFGRASS		
PESTS	ARENA 50 WDG INSECTICIDE APPLICATION RATES	TIMING INSTRUCTIONS
Annual Bluegrass Weevils (larval stages) Billbugs Black Turfgrass Ataenius <i>Phyllophaga</i> spp. (May or June Beetles) Spittle Bugs White Grubs Asiatic Garden Beetle European Chafer Green June Beetle Japanese Beetle Northern Masked Chafer Oriental Beetle Southern Masked Chafer	6.4 to 12.8 oz/A (0.2 to 0.4 lb ai/A) 0.14 to 0.29 oz/1,000 sq ft 4 to 8.3 grams per 1,000 sq ft	<p>Preventative Applications: Make applications through peak egg hatch of target species. Use the upper end of the rate range if application is made 60 days or more prior to peak adult flight and/or egg lay.</p> <p>Curative Applications: Curative applications are considered applications after egg hatch of the target species or when obvious turf damage from current generation has occurred. Use the upper end of the rate range when making applications post egg hatch.</p>
Armyworms Chinch Bugs including: Hairy Southern Crane Fly including American European Cutworms Nuisance Ants (excluding Fire, Harvester, Carpenter, Pharaoh) Sod webworms	9.6 to 12.8 oz/A (0.3 to 0.4 lb ai/A) 0.22 to 0.29 oz/1,000 sq ft 6.2 to 8.3 grams/1,000 sq ft	<p>Cranefly: Apply in the spring, when larvae are mature but prior to pupation or in the fall prior to egg hatch.</p> <p>Other pests: Apply when pest first appears.</p>
Mole Crickets (suppression)	12.8 oz/A (0.4 lb ai/A) 0.29 oz/1,000 sq ft 8.3 grams/1,000 sq ft	Time application to peak egg lay or early instars. Suppression can either mean control that is not commercially acceptable or inconsistent, ranging from poor to good.
1 level teaspoon contains 3 grams and one cup (8 fl oz) contains 5 oz of <i>Arena</i> 50 WDG Insecticide.		
<ul style="list-style-type: none"> Do not apply more than a total of 12.8 oz (0.4 lb ai) of <i>Arena</i> 50 WDG Insecticide per acre per season. 		

Reduced Rate Application for Summer White Grub Control in Turf		
PESTS	ARENA 50 WDG INSECTICIDE APPLICATION RATES	TIMING INSTRUCTIONS
White Grubs European Chafer Japanese Beetle Northern Masked Chafer	4.5 oz/A (0.14 lb ai/A) 0.1 oz/1,000 sq ft 2.8 grams per 1,000 sq ft	Make application between June 1 st and July 15 th . Make application prior to egg hatch of listed white grub species.
1 level teaspoon contains 3 grams and one cup (8 fl oz) contains 5 oz of <i>Arena</i> 50 WDG Insecticide.		
<ul style="list-style-type: none"> Do not apply more than a total of 12.8 oz (0.4 lb ai) of <i>Arena</i> 50 WDG Insecticide per acre per season. 		

STORAGE AND 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.
Do not contaminate water, food or feed by storage or disposal.
For help with any spill, leak, fire or exposure involving this material, call day or night
(800) 892-0099.

PESTICIDE DISPOSAL

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

CONTAINER HANDLING

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available; otherwise dispose of in a sanitary landfill or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Copyright© 2010 by Valent U.S.A. Corporation

Arena is a registered trademark of Sumitomo Chemical Company, Ltd.

Manufactured for:
Valent U.S.A. Corporation
P.O. Box 8025
Walnut Creek, CA 94596-8025
(800) 682-5368

Made in U.S.A.

EPA Reg. No. 59639-152
EPA Est.

059639-00152.20101101.Arena 50 WDG.AMEND1