

228-558

2/26/2010

1/0



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

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

FEB 26 2010

Mr. Matthew Granahan  
Nufarm Americas, Inc.  
150 Harvester Drive, Suite 200  
Burr Ridge, IL 60527

Subject: Amended First Aid Section and Precautionary Statement  
Atera™ 2+1 SC Insecticide  
EPA Reg. No. 228-558  
Your Submission date, September 2, 2008

Dear Mr. Granahan:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended is accepted. A stamped copy is enclosed for your records. Submit two (2) copies of your final printed labeling before you release the product for shipment. If there are questions call me at 703 305-5409.

Sincerely,

A handwritten signature in black ink, appearing to read "Dani Daniel".

Dani Daniel  
Insecticide-Rodenticide Branch  
Registration Division 7505P

Enclosure:

2/10

# ATERA™ 2+1 SC INSECTICIDE

FOR FOLIAR AND SYSTEMIC CONTROL OF INSECT PESTS OF TURFGRASS,  
LANDSCAPE ORNAMENTALS, SHRUBS AND TREES IN LAWNS, LANDSCAPES,  
PLAYGROUNDS, PARKS AND ATHLETIC FIELDS.

**ACTIVE INGREDIENTS:**

Imidacloprid .....	21.29%
Bifenthrin* .....	10.64%

**OTHER INGREDIENTS:**

.....	68.07%
<b>TOTAL:</b> .....	<b>100.00%</b>

\*Cis isomers 97% minimum, trans isomers 3% maximum

Contains 2.0 pounds of imidacloprid and 1.0 pound of bifenthrin per gallon

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300  
For Medical Emergencies Only, Call (877) 325-1840

EPA REG. NO. 228-558  
EPA EST. NO.

MANUFACTURED BY  
NUFARM AMERICAS INC.  
150 HARVESTER DRIVE  
BURR RIDGE, IL 60527



**NET CONTENTS**

000228.00558.20080828.EPA.States  
NUP-07031 (imda 2 lb + bif 1 lb)

ACCEPTED

FEB 26 2010

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

EPA. Reg. No: 228-558

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION**

Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):**

**Applicators and other handlers must wear:** Long-sleeved shirt and long pants, socks, shoes and gloves.

<b>USER SAFETY RECOMMENDATIONS</b>	
<b>Users Should:</b>	<ul style="list-style-type: none"> <li>• Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.</li> <li>• Remove clothing immediately if pesticide gets inside.</li> <li>• Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.</li> </ul>

<b>FIRST AID</b>	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>

**HOTLINE 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 1-(877)-325-1840 for emergency medical treatment information.

**NOTE TO PHYSICIAN**  
 Note to Physician: No specific antidote is available. Treat the patient symptomatically. This product contains a pyrethroid. If large amounts have been ingested, milk, cream and other digestible fats and oils may increase absorption and so should be avoided.

**ENVIRONMENTAL HAZARDS**

This product is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Run-off may be hazardous to aquatic organisms in water adjacent to treated areas.

This product contains a chemical with properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**DIRECTIONS FOR USE**

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

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

Do not allow children or pets on treated surfaces until the spray has dried.

**INFORMATION**

This product controls or suppresses a wide spectrum of insects and mites on turfgrass, trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, ground covers, bedding plants and foliage plants at and/or around residential dwellings (single and multi-family), office, commercial, shopping and institutional buildings and complexes, grounds, parks, recreational areas, athletic fields, playgrounds, airports, cemeteries, lawns and interior landscapes. (Non-bearing crops are perennial crops that will not produce a harvestable raw agricultural commodity during the season of application.) This product mixes readily with water and other aqueous carriers.

This product is not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. This product is not for use in commercial greenhouses, nurseries, or on grasses grown for seed, golf courses, turfgrass grown for sale (sod farms) or on commercial fruit and nut trees.

Some insects can develop resistance to products used repeatedly for their control. Because the development of resistance by an insect to an insecticide cannot be predicted, the use of this product should be according to established resistance management strategies. Consult your local or state pest management authorities for details.

If necessary, consult resources in horticulture in your area (such as your Cooperative Extension Service) to determine appropriate application timing and cultural practices to control different types of pests.

**APPLICATION FOR TURF PESTS**

This product can be used for the control of a wide range of pests of turfgrass. Because this product's active ingredients have long lasting residual activity, applications for control of subsurface feeders can be made before the occurrence of egg laying activity. This product's active ingredients also have sufficient knockdown and residual activity to provide curative and residual control of surface feeding pests.

4/10

Do not apply more than 1.6 pints (0.40 lb. imidacloprid, 0.20 lb. bifenthrin) per acre or 0.60 fluid ounce per 1,000 square feet per application of product to turf. Do not apply more than 2.0 pints (0.50 lb. of imidacloprid active ingredient, 0.25 lb. bifenthrin) per acre or 0.70 fluid ounce per 1,000 square feet per year of product to turf.

**Applications Sites**

Permitted sites include but are not limited to lawns, grounds and landscapes at and/or around residential dwellings (single and multi-family), office, commercial, shopping and institutional buildings and complexes, grounds, parks, recreational areas, athletic fields, playgrounds, airports and cemeteries. **New York State only: Do not apply solutions containing this product to grass or turf within 100 feet of a body of water (lake, pond, river, stream, wetland or drainage ditch).**

**Application Timing**

The active ingredients in this product have sufficiently long-lasting residual activity that applications can be made prior to egg laying by the target pest(s). Optimum control of turf pests will be achieved when application is made prior to egg hatch followed by sufficient irrigation of rainfall to move the active ingredient through thatch and down into the underlying soil. Applications can be timed based on past experiences at the site or in the area, current results of adult monitoring/trapping or other methods.

**Post Application Watering and Mowing**

Optimum control is achieved if irrigation or rainfall occurs within 24 hours after application. Uniformity of application may be adversely affected if turf is mowed prior to irrigation/rainfall occurring.

**Application Precautions and Preparations**

Keep children and pets off treated areas until spray has dried.

Application should not be made to turf that is frozen, waterlogged or is saturated with water. Turf in this condition will not allow the necessary vertical distribution of the active ingredient down into the soil.

This product can be mixed with other insecticides, miticides, fungicides and fertilizers. Follow the label directions of all the products mixed, making sure not to exceed the labeled application rate of any individual product in the mixture. Any tank mixture that has not been tested before should be tested before full scale use by first mixing a small quantity of the mixture to ensure there is no physical or chemical incompatibility.

Because certain cultivars may be sensitive to the final spray solution, test the effects of applications of different rates and volumes of mixed solution on a small patch of a type of grass (with observations over one week to detect the occurrence of negative effects) before application of solutions to large areas of that type of grass.

**Applications Equipment and Methods**

Apply this product mixed in water (according to the table below) as a spray of uniform, coarse droplets at a pressure low enough to eliminate drift from the target area. Properly calibrated application equipment must be used to apply this product. Check calibration periodically to ensure that equipment is working properly.

**Reapplication**

Reapplications may be necessary particularly in the event of high pest pressure. Reapply as necessary to achieve control using higher application rates as pest pressure and foliage area increases but make reapplications no more often than once every 7 days. **New York State only: Do make a single reapplication of this product if there is renewed insect activity, but not sooner than two weeks after first application.**

**Turf Pest Application Use Rates**

Use rates for this product for turf pests are stated in fluid ounces of this product per 1,000 square feet and pints per acre. The application use rates listed below provide control of the listed pests under normal conditions. Apply this product at 0.15 to 0.60 fluid ounce per 1,000 square feet or 0.40 to 1.60 pints per acre, depending on the target pest. Recommended rates for specific pests within this range are given below. Use the higher application rates when maximum residual control is needed. However, applications of up to 0.60 fluid ounce per 1,000 square feet or 1.60 pints per acre are permitted at the first discretion of the applicator to control any pest. Do not apply more than 2.0 pints (0.50 lb. of imidacloprid active ingredient, 0.25 lb. bifenthrin) per acre or 0.70 fluid ounce per 1,000 square feet of product per year to turf.

**Turf Pests Groups by Use Rates**

Use Rate Ranges for the following Turf Pests Group		
0.46 - 0.60 fluid ounce of this product per 1,000 square feet or 1.25 - 1.60 pints of this product per acre.		
Annual bluegrass weevil, <i>Aphodius spp.</i>	Frit fly	Nuisance ants
Asiatic garden beetle	Green June beetle	Oriental beetle, <i>Phyllophaga spp.</i>
Black turfgrass ataenius	Imported Fire Ants	Southern masked chafer
Black vine weevil	Japanese beetle	Ticks
European chafer	Mole crickets	
European crane fly	Northern masked chafer	

Use Rate Ranges for the following Turf Pests Group		
0.15 - 0.60 fluid ounce of this product per 1,000 square feet or 0.40 - 1.60 pints of this product per acre.		
Annual bluegrass weevil, <i>Aphodius spp.</i>	Crickets	Mealybugs
Armyworms	Cutworms	Millipedes
Banks grass mites	Earwigs	Mites
Billbugs	Fleas	Pillbugs
Chinch bugs	Grasshoppers	Sod webworms
Centipedes	Leafhoppers	Sowbugs

1 fluid ounce = 2 tablespoons = 6 teaspoons. Do not use household utensils to measure this product.

**Application Recommendations Against Specific Turf Pests**

**Annual Bluegrass Weevil (*Hyperodes*) adults:** Applications should be timed to control adult weevils as they leave their overwintering sites and move into grass areas. This movement generally begins when Forsythia is in full bloom and concludes when flowering dogwood (*cornus florida*) is in full bloom. Consult your Cooperative Extension Service for more specific information regarding application timing.

**Annual Bluegrass Weevil (*Listronotus maculicollis*) larvae:** For best results, applications should be made at the first sign of wilting of bluegrass. For the first generation, this wilting often occurs after full bloom of flowering dogwood (*Cornus florida*).

**Armyworms, Cutworms and Sod Webworms:** To ensure optimum control, delay watering (irrigation) or mowing for 24 hours after application. The highest application rate may be necessary during periods of highest pest pressure if the grass is being maintained at a mowing height of 1 inch or greater.

**Billbug adults:** Applications should be made when adults first appear in the spring or when chewed or brown grass indicates damage. Degree day models have been developed to optimize application timing. Consult your Cooperative Extension Service for information specific to your region. In temperate regions, spring applications targeting billbug adults will also provide control of overwintered chinch bugs.

**Chinch Bugs:** Because they infest the base of grass plants, chinch bugs are often found in the thatch layer. Irrigation of the grass or high volume applications of solution can increase penetration of the solution to where the chinch bugs are located. Chinch bugs can be one of the most difficult turf pest to control. High application rates may be required to achieve effective control, particularly in the middle of the summer when both nymphs and adults are present.

**Mites:** To ensure optimal control of eriophyid mites, apply in combination with the labeled application rate of a surfactant. A second application, five to seven days after the first, may be necessary to achieve acceptable control.

**Flea larvae:** Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. Use a higher volume application when treating these areas to ensure penetration of the insecticide into the soil.

**Imported Fire Ants:** Combine broadcast treatments to control newly invading ants and mound treatments to eliminate existing ant colonies. If the soil is not moist, irrigate before application or use a high volume application. Broadcast treatments should be applied at 0.60 fluid ounce per 1,000 square feet. Mounds should be treated by diluting 0.10 fluid ounce (2/3 teaspoon) of this product per gallon of water and applying 1 to 2 gallons of finished spray per mound. The mounds should be treated with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. A four foot diameter circle around the mound should also be treated. For best results, apply in cool weather (65 - 80°F) or in early morning or late evening hours.

**Mole Cricket adults:** Adult mole cricket control is difficult to attain because of continuous invasion during the early spring. Applications, made as late in the day as possible, should be watered in with 0.5 inches of water immediately following treatment. Irrigating dry soil before application will bring crickets closer to the surface.

**Mole Cricket nymphs:** Grass areas that received intense adult mole cricket pressure in the spring should be treated immediately prior to peak egg hatch when young nymphs are located near the soil surface. Control of larger, more damaging, nymphs later in the year may require both higher application rates and more frequent applications to maintain acceptable control. Applications, made as late in the day as possible, should be watered in with 0.5 inches of water immediately following treatment. Irrigating dry soil before application will bring crickets closer to the surface.

**Ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted fever):** Treat the entire area where exposure to ticks may occur. Avoid spot applications. Use higher spray volumes when treating areas with dense ground cover or heavy leaf litter. Ticks may be reintroduced from surrounding areas on host animals. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed activity. Repeat application should be limited to no more than once per seven days.

Deer ticks (*Ixodes sp.*) have a complicated two year life cycle that involves four life stages. Applications should be made in the late fall and/or early spring to control adult ticks that are usually located on brush or grass above the soil surface and in mid to late spring to control larvae and nymphs that reside in the soil and leaf litter.

American dog ticks commonly congregate along paths or roadways where humans are likely to be encountered. Applications should be made as necessary from mid-spring to early fall to control their larvae, nymphs and adults.

### Turf Application Volumes

Apply the indicated amount of this product mixed in a volume of water sufficient to adequately distribute the active ingredient to the target area(s) and to wet all foliage.

The calculated amount of this product can be applied in any volume of water provided the maximum label rate is not exceeded. Do not exceed the maximum label rate by applying solution to an area smaller than intended when it was mixed and diluted unless such under dosing will not result in an application rate in excess of the maximum label rate.

#### Calculating Amounts to Mix for Turf Pests

To mix and apply any amount of this product for turf pests based on a number of square feet, determine:

A = # of Square feet of area to be treated / 1,000 (for example 5,000 sq. ft. / 1,000 = 5.0)

B = Applicable Use Rate of this product (fluid ounces per 1,000 square feet) for the target pest(s) from the Use Rate Table. If treating for more than one type of pest, select the highest rate.

Calculate the amount of this product to mix for turf pests as follows:

Ounces of this product to use = A X B

Mix this amount of this product in the amount of water needed to make the application.

To mix and apply any amount of this product for turf pests based on number of acres, determine:

A = # of acres of areas to be treated = square feet of area to be treated / 43,560 (1 acre = 43,560 sq. ft.)

B = Applicable Use Rate of this product (pints per acre) for the target pest(s) from the Use Rate Table. If treating for more than one type of pest, select the highest rate.

Calculate the amount of this product to mix for turf pests as follows:

Pints of this product to use = A X B

Mix this amount of this product in the amount of water needed to make the application.

1 Pint = 16 ounces.

### FOLIAR AND BROADCAST APPLICATION FOR ORNAMENTAL PESTS

This product applied to foliage and broadcast on the soil, controls or suppresses a wide range of pests on trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, ground covers, bedding plants and foliage plants including plants in interior landscapes. (Non-bearing trees are perennial plants that will not produce a harvestable agricultural commodity within the next 12 months.) This product is not for use on plants being grown for sale, fruit, nut or commercial seed production or for research purposes.

This product is a systemic insecticide meaning it can be translocated by the plant's vascular system from the roots up into the body of the plant. This means optimum effectiveness of this product is realized when this product is applied on or near a growing portion of the plant from which it may be translocated to other parts of the plant. Combining this product with a nitrogen containing fertilizer may accelerate or otherwise enhance the uptake of the active ingredient into the plant. Translocation of soil directed applications made to woody stemmed plants can be delayed by up to 60 days. For this reason, applications should be made prior to anticipated pest infestation to achieve optimum levels of control. Foliar applications of this product also have local systemic activity against insect pests.

For outdoor ornamentals, broadcast applications cannot exceed a total of 2.0 pints (0.50 lb. of imidacloprid and 0.25 lb. of bifenthrin) per acre per year.

#### Application Sites

For use on ornamental plants including but not limited to trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, ground covers, bedding plants and foliage plants including plants in interior landscapes.

#### Application Preparation

This product can be mixed with other insecticides, miticides, fungicides and fertilizers. Follow the label directions of all the products mixed, making sure not to exceed the labeled application rate of any individual product in the mixture. Any tank mixture that has not been tested before should be tested before full scale use by first mixing a small quantity of the mixture to ensure there is no physical or chemical incompatibility.

### FOLIAR APPLICATION

#### Ornamental Application to Control Ants

This product can be used to indirectly control ants when applied to control aphids, scale insects, mealybugs and other sucking insects on ornamentals thereby limiting the amount of honeydew available.

#### Foliar Application Volumes and Application Methods

This product mixes readily with water and may be used in many types of application equipment. Mix required amount of product (from the table below) with the amount of water required to uniformly wet foliage and apply as directed dependent upon the selected use pattern. When making foliar applications on hard to wet foliage such as holly, pine, or ivy, the addition of a spreader/sticker is recommended. If concentrate or mist type spray equipment is used, an equivalent amount of product should be used on the area sprayed, as would be used in a dilute application. Begin treatments prior to establishment of high pest populations. Reapply as needed.

**Foliar Application Use Rates**

Use rates for this product for foliar application for ornamental pests are stated in fluid ounces (and millimeters) of this product per 100 gallons of water. The application rates listed below provide control of the listed pests under normal conditions. Apply this product at 2.4 to 7.7 fluid ounces per 100 gallons, depending on the target pests. Recommended rates for specific pests within this range are given below. Use the higher application rates when maximum residual control is needed. However, applications of up to 7.7 fluid ounces per 100 gallons are permitted at the discretion of the applicator to control any pest.

Use Rate Ranges for the following Ornamental Pests Group by Foliar Application		
7.7 fluid ounces of this product per 100 gallons of water or 225 ml of this product per 100 gallons of water.		
Ants Beet Armyworm Black vine weevil adult Broad mites Budworms Scale crawlers Citrus thrips Clover mites Diaprepes (adults)	European red mites Fleabeetles Fungus gnats (adults) Grasshoppers Leafrollers Mites Mosquitos Orchid weevil Pine needle scales (crawlers)	Plant bugs San Jose scale (crawlers) Spider Mites Thrips Tip moths Twig borers Wasps

Use Rate Ranges for the following Ornamental Pests Group by Foliar Application		
3.8 - 7.7 fluid ounces of this product per 100 gallons of water or 112.5 - 225 ml of this product per 100 gallons of water.		
Bagworms Cutworms	Fall webworms Gypsy moth caterpillars	Leaf feeding caterpillars Tent caterpillars

Use Rate Ranges for the following Ornamental Pests Group by Foliar Application		
2.4 - 7.7 fluid ounces of this product per 100 gallons of water or 72 - 225 ml of this product per 100 gallons of water.		
Adelgids Aphids Japanese beetles Lace bugs Leafbeetles (including elm and viburnum leaf	beetles) Leafhoppers (including glassy-winged sharpshooter) Mealybugs Psyllids	Sawfly larvae Thrips (suppression) Treehoppers Whiteflies

1 fluid ounce = 2 tablespoons = 6 teaspoons. Do not use household utensils to measure this product.

**BROADCAST APPLICATION**

**Broadcast Application Volumes and Application Methods**

Mix required amount of product in a quantity of water sufficient to uniformly treat area. Use a minimum of 2 gallons of water per 1,000 square feet. To achieve optimum control, irrigate treated area in order to incorporate treatment into upper level of soil.

Do not exceed the maximum label rate by applying solution to an area smaller than intended when it was mixed and diluted unless such under dosing will not result in an application rate in excess of the maximum label rate.

For outdoor ornamentals, broadcast applications cannot exceed a total of 2.0 pints (0.50 lb. of imidacloprid and 0.25 lb. of bifenthrin) per acre or 0.70 fluid ounces per 1,000 square feet per year.

**Broadcast Application Use Rates**

Use rates for this product for broadcast application for ornamental pests are stated in fluid ounces (and millimeters) of this product per 1,000 square feet. The application rates listed below provide control of the listed pests under normal conditions. Apply this product at 0.15 to 0.60 fluid ounces per 1,000 square feet, depending on the target pest. Recommended rates for specific pests within this range are given below. Use the higher application rates when maximum residual control is needed.

Use Rate Ranges for the following Ornamental Pests Group by Broadcast Application		
0.46 - 0.60 fluid ounces of this product per 1,000 square feet or 14 - 18 ml of this product per 1,000 square feet.		
White grub larvae (such as Japanese beetle larvae, Chafers, Phyllophaga spp., Asiatic garden beetle, Oriental beetle)	Imported Fire Ants	Nuisance Ants

8/1/02

Use Rate Ranges for the following Ornamental Pests Group by Broadcast Application		
0.15 - 0.30 fluid ounce of this product per 1,000 square feet or 4.30 - 9.40 ml of this product per 1,000 square feet.		
Centipedes Crickets Earwigs	Pillbugs Sowbugs Armyworms	Cutworms Sod webworms

1 fluid ounce = 2 tablespoons = 6 teaspoons. Do not use household utensils to measure this product.

**SOIL INJECTION AND SOIL DRENCH FOR ORNAMENTAL PESTS**

This product, applied as a soil drench or soil injection, controls or suppresses a wide range of insects on trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, foliage plants, ground covers and interior landscapes. (Non-bearing trees are perennial plants that will not produce a harvestable agricultural commodity within the next 12 months.) This product is not for use on plants being grown for sale, fruit, nut or commercial seed production or for research purposes.

This product is a systemic insecticide meaning it can be translocated by the plant's vascular system from the roots up into the body of the plant. This means optimum effectiveness of this product is realized when this product is applied on or near a growing portion of the plant from which it may be translocated to other parts of the plant. Combining this product with a nitrogen containing fertilizer may accelerate or otherwise enhance the uptake of the active ingredient into the plant. Translocation of soil drench applications made to woody stemmed plants can be delayed by up to 60 days. For this reason, applications should be made prior to anticipated pest infestation to achieve optimum levels of control.

Applications to trees for the control of existing borer infestations may not prevent the eventual loss of the tree due to existing damage already caused by the pest and stress to the tree caused by the pest infestation.

**Application Sites**

For use on ornamental plants including but not limited to trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, ground covers, bedding plants and foliage plants including plants in interior landscapes.

**Application Preparation**

This product can be mixed with other insecticides, miticides, fungicides and fertilizers. Follow the label directions of all the products mixed, making sure not to exceed the labeled application rate of any individual product in the mixture. Any tank mixture that has not been tested before should be tested before full scale use by first mixing a small quantity of the mixture to ensure there is no physical or chemical incompatibility.

Ornamental Pests Controlled by Soil Injection or Drench Application		
Adelgids Aphids Armored scales (suppression) Black vine weevil larvae Eucalyptus longhorned borer Flatheaded borers (including bronze birch borer and alder borer) Japanese beetles	Lace bugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Pine tip moth larvae	Psyllids Royal palm bugs Sawfly larvae Soft scales Thrips (suppression) White grub larvae Whiteflies

**SOIL INJECTION FOR TREES**

Soil injection is not allowed in Nassau and Suffolk Counties of New York.

Soil Injection Use Rate for Trees
0.16 to 0.32 fluid ounce per inch of trunk diameter (D. B. H.) / 5 to 10 milliliters per inch of trunk diameter (D. B. H.)

**Soil Injection Volumes and Application Method for Trees**

Mix the calculated amount of this product in the amount of water determined to be adequate for the treatment to be adequately dispersed. Apply at a low pressure according to one of the two following methods. Make a minimum of 4 injection holes per tree. For optimum control, maintain a high level of soil moisture in the treated area for 7 to 10 days after treatment.

**Grid Injection:** Evenly space holes on 2.5 foot centers in a grid pattern in the soil beneath the tree's branches/foliage out to the tree's drip line.

**Basal Injection:** Evenly space injection holes around the base of the tree no more than 12 inches out from the tree.

**Circle System:** Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line of the tree extending in from that line.



**SOIL DRENCH FOR TREES**

<b>Soil Drench Use Rate for Trees</b>
0.16 to 0.32 fluid ounce per inch of trunk diameter (D. B. H.) / 5 to 10 milliliters per inch of trunk diameter (D. B. H.)

**Soil Drench Volume and Application Method for Trees**

Mix the calculated amount of this product in the amount of water determined to be adequate for the solution to be adequately dispersed. Apply solution at a rate of no less than 10 gallons per 1,000 square feet around the base of the tree directed to the root zone. If present, remove any barrier to the movement of the solution into the soil such as a plastic vapor barrier.

**SOIL INJECTION FOR SHRUBS**

Soil injection is not allowed in Nassau and Suffolk Counties of New York

<b>Soil Injection Use Rate for Shrubs</b>
0.16 to 0.32 fluid ounce per foot of shrub height / 5 to 10 milliliters per foot of shrub height

**Soil Injection Volume and Application Method for Shrubs**

Mix the calculated amount of this product in the amount of water determined to be adequate for the treatment to be adequately dispersed. Apply to individual plants using dosage indicated at a low pressure, making a minimum of 4 injection holes per shrub. For optimum control, maintain a high level of soil moisture in the treated area for 7 to 10 days after treatment.

**SOIL DRENCH FOR SHRUBS**

<b>Soil Drench Use Rate for Shrubs</b>
0.16 to 0.32 fluid ounce per foot of shrub height / 5 to 10 milliliters per foot of shrub height

**Soil Drench Volumes and Application Method for Shrubs**

Mix the calculated amount of this product in the amount of water determined to be adequate for the solution to be adequately dispersed, but at a rate no less than 10 gallons per 1,000 square feet around the base of each shrub directed to the root zone. If present, remove any barrier to the movement of the solution into the soil such as a plastic vapor barrier.

**Soil Incorporation for Flowers and Groundcovers**

Apply as a broadcast treatment and incorporate into the soil before planting or apply after plants are established. If application is made to established plants, optimum control will be attained if area is irrigated thoroughly after application.

<b>Soil Incorporation Use Rate for Flowers and Groundcovers</b>
0.46 - 0.60 fluid ounces per 1,000 square feet / 14 to 18 milliliters per 1,000 square feet

**RESTRICTIONS**

- Do not graze treated areas or use clippings from treated areas for feed or forage.
- Avoid runoff or puddling of irrigation water following application.
- Do not apply by air.
- Do not apply by any type of irrigation system.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking, invert to prevent leakage. If container is leaking or if material is spilled for any reason or cause, carefully contain any spilled material to prevent non-target contamination. Do not walk through spilled material and dispose of as directed for pesticides below. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. Refer to Precautionary Statements on label for hazards associated with the handling of this material. In spill or leak incidents, keep unauthorized people away. You may contact Chemtrec at 1-800-424-9300.

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

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

9/10

#### **WARRANTY DISCLAIMER**

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

#### **LIMITATION OF LIABILITY**

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER OR SELLER SHALL NOT BE LIABLE TO BUYER OR USER BY WAY OF INDEMNIFICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF ANY, OR FOR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR ARISING OUT OF THE MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD BY MANUFACTURER OR SELLER TO BUYER. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

**If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.**

(011108A)

Atera is a trademark of Nufarm Americas Inc.