

**RESTRICTED USE PESTICIDE**

For retail sale to and use only by certified applicators, or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

# Prescription Treatment® brand **Attain® Nursery**

## **Insecticide/Miticide Microemulsion**

**For Commercial Nonfood Use on:**

Indoor and Outdoor Ornamentals, Greenhouses, Nurseries and Turf on Golf Courses and Sod Farms

**Do not use this product on Golf Courses and Sod Farms in Nassau County or Suffolk County, New York.**

**ACTIVE INGREDIENT:**

Bifenthrin\* ..... **By Wt.** 7.9%

**OTHER INGREDIENTS:** ..... 92.1%

\*Cis isomers 97% minimum; trans isomers 3% maximum.

**TOTAL: 100.0%**

Contains 0.67 lb active ingredient per gallon.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**EPA Reg. No. 53883-165-499**

**FIRST AID.**

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

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 min. 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.

**NOTE TO PHYSICIAN:** This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils or alcohol may increase absorption and so should be avoided.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-225-3320 for emergency medical treatment information.

**ENVIRONMENTAL HAZARDS**

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and run off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

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

**DIRECTIONS FOR USE**

**IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.**

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

Do not apply this product through any kind of irrigation system.

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION:** Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

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

**Applicators and other handlers (other than mixers and loaders) must wear:** Long sleeved shirt and long pants; chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or viton; shoes plus socks.

**Mixers and loaders must wear:** Long sleeved shirt and long pants; chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or viton; shoes plus socks; protective eyewear.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**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. Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about PPE and restricted entry intervals (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of 12 hr.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls; chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or viton; shoes plus socks.

**NON-AGRICULTURAL USE REQUIREMENTS**

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

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

**GENERAL APPLICATIONS INSTRUCTIONS**

Attain Nursery controls numerous insects and mites on trees, shrubs, foliage plants, nonbearing fruit and nut trees and flowers in greenhouses. Nonbearing crops are perennial crops that will not produce a harvestable raw agricultural commodity during the season of application.

Spreader stickers are not necessary with Attain Nursery.



**WHITMIRE MICRO-GEN**  
RESEARCH LABORATORIES, INC.

**NOTE:** This specimen label is for informational purposes only. All uses may not be approved in all states. See labeling which accompanied product for Directions for Use or call 800-777-8570 for more information. **For automatic specimen label updates, register at [www.wmmg.com](http://www.wmmg.com).**



# Attain<sup>®</sup> Nursery Insecticide/Miticide Microemulsion

Attain Nursery can be tank mixed with insect growth regulators, other pesticides and other aqueous carriers. Observe all Precautions and Directions for Use for each product. Physical compatibility may vary with different combinations of products, so prepare a small scale (pint or quart jar) test sample for any combination not tested previously. Use proper proportions in the small scale test to achieve the correct result.

Unless otherwise noted in the label instructions, use the procedure below for preparation of a new tank mix:

1. Add wettable powders to tank water
2. Mix well
3. Add liquids and flowables
4. Mix well
5. Add emulsifiable concentrates
6. Mix well

Try reversing the order of addition or increasing the amount of water if the combination is not compatible using the above order. NOTE: After increasing the amount of water, if the mixture is found to be compatible, it is necessary to recalibrate the sprayer for a higher volume application. Do not allow mixture to stand overnight.

**Maximum rates:** Do not apply more than 0.2 lb AI/acre (40 fl oz of Attain Nursery) in a single application or per year for outdoor applications.

**Resistance:** When products are used repeatedly for control, some insects are known to build up resistance, but this cannot be predicted. This product should conform to resistance management strategies established for the use area. Check with your local or state pest management authorities for more information.

This product, or other products with a comparable mode of action, may not provide sufficient control if resistance should develop in your area. A resistant species may be present if poor efficacy can not be linked to extreme weather conditions or improper treatment. Consult pest management advisors for the other methods of control for your area if you believe resistance is a factor.

### DILUTION CHART

| Appl. Volume<br>Gallons/Acre | Appl. Rate<br>Pounds AI/Acre | Fluid Ounces* of Attain Nursery Diluted to these Volumes<br>of Finished Sprays |            |            |             |
|------------------------------|------------------------------|--|------------|------------|-------------|
|                              |                              | 1 Gallon   | 25 Gallons | 50 Gallons | 100 Gallons |
| 50                           | 0.025                        | 0.1  | 2.5        | 5.0        | 10.0        |
| 50                           | 0.05                         | 0.2  | 5.0        | 10.0       | 20.0        |
| 50                           | 0.1                          | 0.4  | 10.0       | 20.0       | 40.0        |
| 50                           | 0.2                          | 0.8  | 20.0       | 40.0       | 80.0        |
| 100                          | 0.025                        | 0.05   | 1.25       | 2.5        | 5.0         |
| 100                          | 0.05                         | 0.1  | 2.5        | 5.0        | 10.0        |
| 100                          | 0.1                          | 0.2  | 5.0        | 10.0       | 20.0        |
| 100                          | 0.2                          | 0.4  | 10.0       | 20.0       | 40.0        |
| 150                          | 0.025                        | 0.03   | 0.83       | 1.67       | 3.3         |
| 150                          | 0.05                         | 0.07   | 1.67       | 3.33       | 6.7         |
| 150                          | 0.1                          | 0.133  | 3.33       | 6.67       | 13.3        |
| 150                          | 0.2                          | 0.266  | 6.67       | 13.33      | 26.7        |
| 200                          | 0.025                        | 0.025  | 0.63       | 1.25       | 2.5         |
| 200                          | 0.05                         | 0.05   | 1.25       | 2.5        | 5.0         |
| 200                          | 0.1                          | 0.1  | 2.5        | 5.0        | 10.0        |
| 200                          | 0.2                          | 0.2  | 5.0        | 10.0       | 20.0        |
| 250                          | 0.025                        | -  | 0.5        | 1.0        | 2.0         |
| 250                          | 0.05                         | -  | 1.0        | 2.0        | 4.0         |
| 250                          | 0.1                          | -  | 2.0        | 4.0        | 8.0         |
| 250                          | 0.2                          | -  | 4.0        | 8.0        | 16.0        |
| 300                          | 0.025                        | -  | 0.42       | 0.83       | 1.7         |
| 300                          | 0.05                         | -  | 0.83       | 1.67       | 3.3         |
| 300                          | 0.1                          | -  | 1.67       | 3.33       | 6.7         |
| 300                          | 0.2                          | -  | 3.33       | 6.67       | 13.3        |

\*To convert to milliliters, multiply by 29.57

1 fl oz = 29.57 ml = 2 tbsp. = 6 tsp.

**Do not use household utensils to measure Attain Nursery.**

**Formula for Determining the Active Ingredient Content of the Finished Spray**

**Mixture:** To determine the percent active ingredient that is in the spray tank after mixing Attain Nursery use the formula below:

$$\frac{(7.9)(\text{Fluid Ounces of Attain Nursery added to tank})}{(\text{Gallons of finished spray mix})(128)} = \text{Percent AI of spray mix}$$

### ORNAMENTALS

**Ornamentals in Greenhouses, Lath Houses, Shade Houses and Outdoor Nurseries, including Non-bearing Fruit and Nut Trees:** Apply 0.025 - 0.2 lb AI/acre (5 - 40 fl oz) of Attain Nursery. Provided the maximum label rate (0.2 lb AI/acre or 40 fl oz) is not exceeded, Attain Nursery can be diluted and applied in various volumes of water. It may also be applied through low volume application equipment by dilution with water or other carriers. Refer to Dilution Chart for specific instructions.

### ORNAMENTAL APPLICATION RATES

Under typical conditions, the application rates in the table below will provide control of the pests listed. However, at the discretion of the applicator, Attain Nursery may be applied at up to 0.2 lb AI/acre (40 fl oz) to control the pests listed in this Table.

| Pest   | Application Rate Attain Nursery |                   |
|--|---------------------------------|-------------------|
|  | Pounds AI/Acre                  | Fluid Ounces/Acre |
| Aphids, Bagworms <sup>1</sup> , Cutworms, Elm Leaf Beetles, Fall Webworms, Lace Bugs, Leaf Feeding Caterpillars, Plant Bugs (Including <i>Lygus spp.</i> ), Tent Caterpillars  | 0.025 - 0.05                    | 5 - 10            |
| Beet Armyworm, Black Vine Weevil (Adults), Brown Soft Scales, Broad Mites, Budworms, California Red Scale (Crawlers) <sup>2</sup> , Centipedes, Citrus Thrips, Clover Mites, Crickets, Diaprepes (Adults), Earwigs, European Red Mite, Flea Beetles, Fungus Gnats (Adults), Grasshoppers, Gypsy Moth Caterpillars, Leafhoppers, Leafrollers, Mealybugs, Millipedes, Mites, Orchid Weevil, Pillbugs, Pine Needle Scales (Crawlers) <sup>2</sup> , San Jose Scales (Crawlers) <sup>2</sup> , Sowbugs, Spider Mites, Spiders, Thrips, Tip Moths, Twig Borers <sup>3</sup> , Weevils, Whiteflies | 0.05 - 0.1                      | 10 - 20           |
| Ants, Imported Fire Ants <sup>**</sup> , Japanese Beetle (Adult), Leafminers, Pecan Leaf Scorch Mite, Pine Shoot Beetle (Adults)   | 0.1 - 0.2                       | 20 - 40           |

\*\*For foraging ants.

**Bagworms:** For optimum control treat when larvae have started to hatch and are young, directing spray to contact as many larvae as possible.

**Scale Crawlers and Twig Borers:** Apply to plant foliage; also treat trunks, stems and twigs. Treat a small number of plants, and observe for 1 wk to determine if certain cultivars are sensitive to the final spray solution.

- Apply with ground equipment only.
- Do not apply when wind direction favors downwind drift towards nearby water bodies.
- Do not apply when wind velocity exceeds 10 mph.
- Avoid application when wind gusts approach 10 mph.
- Do not apply when a temperature inversion exists.
- Apply using the largest nozzle size compatible with adequate coverage.
- Do not apply if rain is expected within 12 hr (or whatever time is necessary for the spray to dry).
- Do not apply by ground equipment within 25 ft of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds. Do not apply within 150 ft of aquatic areas when treating tall trees (>15 ft) from the ground with high pressure sprays or during any application with air assisted equipment (mist blower).

### IMPORTED FIRE ANT (IFA) QUARANTINE TREATMENT

For IFA in Potting Media (including balled and containerized nursery grown ornamental trees, shrubs, plants, flowers, conifers, bushes, Christmas trees and nonbearing fruit and nut trees). Attain Nursery is approved and can be used in accordance with the USDA Imported Fire Ant Quarantine Program. Attain Nursery may be applied either as a high volume drench treatment, soil incorporated or as a topical application.

**Soil Incorporation:** By sprinkling or spraying it onto the media, incorporate the appropriate volume of Attain Nursery (see table below) per cubic yard of potting media by diluting it in water (typically 1 qt - 1 gal/cu yd of media). The applications are based on the dry bulk density of the potting media. This application will provide a 6 mo certification period when used in accordance with USDA guidelines.

### Recommended Rates for Soil Incorporation of Attain Nursery to Control IFA in Potting Media

| Potting Media Bulk Density (lb/cu yd) | Fluid Ounces of Attain Nursery in 1 cu yd |
|---------------------------------------|---|
| 200                                   | 1.9                                       |
| 400                                   | 3.8                                       |
| 600                                   | 5.7                                       |
| 800                                   | 7.6                                       |
| 1,000                                 | 9.5                                       |
| 1,200                                 | 11.4                                      |
| 1,400                                 | 13.3                                      |

Use proportional amounts of Attain Nursery for potting media with bulk densities not listed.

**NOTE:** This specimen label is for informational purposes only. All uses may not be approved in all states. See labeling which accompanied product for Directions for Use or call 800-777-8570 for more information. **For automatic specimen label updates, register at [www.wmmg.com](http://www.wmmg.com).**



# Attain<sup>®</sup> Nursery Insecticide/Miticide Microemulsion

**Topical Application:** Mix Attain Nursery in 1,000 oz of water based on container size and bulk density of the potting media (see table below). Use 1 oz of the mixture, evenly distributing over the potting media surface of each container. After treatment, irrigate all treated containers with 1.5" of water. This application will provide a 6 mo certification period when used in accordance with USDA guidelines

### Recommended Application Rate for Topical Drench of Attain Nursery to Control IFA in Potting Media

| Potting Media Bulk Density (lb/cu yd) | Fluid Ounces of Attain Nursery/1,000 fl oz of water |                |
|---------------------------------------|---|----------------|
|                                       | 3 qt Container                                      | 4 qt Container |
| 200                                   | 3.6   | 5.2            |
| 400                                   | 7.2   | 10.4           |
| 600                                   | 10.8  | 15.6           |
| 800                                   | 14.4  | 20.8           |
| 1,000                                 | 18.0  | 26.0           |
| 1,200                                 | 21.6  | 31.2           |
| 1,400                                 | 25.2  | 36.4           |

Use proportional amounts of Attain Nursery for potting media with bulk densities not listed.

**High Volume Drench:** Mix the appropriate amount based on the bulk density of the media in 100 gal of water (see table below). Use Attain Nursery as a high volume drench in each of the containers to the point of saturation. The amount of mix used for each plant is normally 1/5 volume of the container. This application will provide a 6 mo certification period when used in accordance with USDA guidelines.

### Recommended Application Rate for High Drench of Attain Nursery to Control IFA in Potting Media

| Potting Media Bulk Density (lb/cu yd) | Fluid Ounces of Attain Nursery in 100 gal of water |
|---------------------------------------|--|
| 200                                   | 2.4  |
| 400                                   | 4.8  |
| 600                                   | 7.2  |
| 800                                   | 9.6  |
| 1,000                                 | 12.0   |
| 1,200                                 | 14.4   |
| 1,400                                 | 16.8   |

Use proportional amounts of Attain Nursery for potting media with bulk densities not listed.

### LARVAL CONTROL IN POTTING MEDIA OF CONTAINERIZED PLANTS

| PREVENTATIVE TREATMENT  |                     |  |  |
|---|---------------------|--|--|
| Pest  | Application Type    | Treatment with Attain Nursery  | Remarks  |
| Black Vine Weevil Larvae  | Topical Drench      | Use at the rate of 10 - 40 fl oz (0.05 - 0.2 lb AI) per 100 gal of water and apply as a drench at the rate of 4 - 8 fl oz of finished spray per 6" (diameter) container. The media should be treated to the point of saturation, which generally requires 1/5 the volume of the container. | 10 fl oz of Attain Nursery per 100 gal of water and applying 8 fl oz of finished spray per 6" (diameter) container will provide control for one growing season when the application is made in the spring.<br>20 - 40 fl oz of Attain Nursery per 100 gal of water and applying 8 fl oz of finished spray per 6" (diameter) container will provide control for two growing seasons when the application is made in the spring.<br>Use a proportional volume of finished spray for containers less than or greater than 6" in diameter. |
| White Grubs - Japanese beetle - Oriental beetle - European chafer | Topical Drench      | Use at the rate of 40 - 80 fl oz (0.2 - 0.4 lb AI) per 100 gal of water and apply as a drench at the rate of 4 - 8 fl oz of finished spray per 6" (diameter) container. The media should be treated to the point of saturation, which generally requires 1/5 the volume of the container.  | Use the higher application rate for a longer period of control.<br>Use a proportional volume of finished spray for containers less than or greater than 6" in diameter.  |
| Black Vine Weevil Larvae and White Grub                           | Media Incorporation | Incorporate the appropriate volume of Attain Nursery (see table below) per cubic yard of potting media by diluting it in water (typically 1 qt - 1 gal/cu yd of media) and sprinkling or spraying it onto the media.   | Use the higher application rates for longer periods of control.  |
| Fungus Gnat Larvae  | Topical Drench      | Use at the rate of 20 - 40 fl oz (0.1 - 0.2 lb AI) per 100 gal of water and apply as a drench at the rate of 4 - 8 fl oz of finished spray per 6" (diameter) container. The media should be treated to the point of saturation, which generally requires 1/5 the volume of the container.  | Use a proportional volume of finished spray for containers less than or greater than 6" in diameter.   |

Chart continues in next column.

|                    |                     |   |
|--------------------|---------------------|---|
| Root Weevil Larvae | Bare-root Treatment | Use at the rate of 1 gal in 100 gal of water and treat the bare roots of plants that are being transplanted into the field. Either dip the roots into the insecticide solution for 10 sec or spray the insecticide solution onto the roots. |
|--------------------|---------------------|---|

| Potting Media Bulk Density (lb/cu yd) | Fluid Ounces of Attain Nursery in 1 cu yd |        |        |        |
|---------------------------------------|---|--------|--------|--------|
|                                       | 10 ppm                                    | 15 ppm | 20 ppm | 25 ppm |
| 200                                   | 0.4                                       | 0.6    | 0.8    | 1.0    |
| 300                                   | 0.6                                       | 0.9    | 1.2    | 1.5    |
| 400                                   | 0.8                                       | 1.2    | 1.6    | 2.0    |
| 500                                   | 1.0                                       | 1.5    | 2.0    | 2.5    |
| 600                                   | 1.2                                       | 1.8    | 2.4    | 3.0    |
| 700                                   | 1.4                                       | 2.1    | 2.8    | 3.5    |
| 800                                   | 1.6                                       | 2.4    | 3.2    | 4.0    |
| 900                                   | 1.8                                       | 2.7    | 3.6    | 4.5    |
| 1,000                                 | 2.0                                       | 3.0    | 4.0    | 5.0    |

The application rates in the table above are based on the dry bulk density of the potting media. For potting media with dry bulk densities not listed above, use proportional volumes of Attain Nursery.

| CURATIVE TREATMENT       |                  |   |  |
|--------------------------|------------------|---|--|
| Pest                     | Application Type | Treatment with Attain Nursery   | Remarks  |
| Black Vine Weevil Larvae | Topical Drench   | Use at the rate of 10 - 40 fl oz (0.05 - 0.2 lb AI) per 100 gal of water and apply as a drench at the rate of 8 - 16 fl oz of finished spray per 6" (diameter) container. The media should be treated to the point of saturation, which generally requires 1/5 the volume of the container.   | 10 fl oz of Attain Nursery per 100 gal of water and applying 8 fl oz of finished spray per 6" (diameter) container will provide control for one growing season when the application is made in the spring.<br>20 - 40 fl oz of Attain Nursery per 100 gal of water and applying 8 fl oz of finished spray per 6" (diameter) container will provide control for two growing seasons when the application is made in the spring.<br>Use a proportional volume of finished spray for containers less than or greater than 6" in diameter. |
| Diaprepes Weevil Larvae  | Topical Drench   | Use at the rate of 10 - 40 fl oz (0.05 - 0.2 lb AI) per 100 gal of water and apply as a drench at the rate of 8 - 16 fl oz of finished spray per 6" (diameter) container. The media should be treated to the point of saturation, which generally requires 1/5 the volume of the container.   | Use the higher application rate for a longer period of control.<br>Use a proportional volume of finished spray for containers less than or greater than 6" in diameter.  |
| Fungus Gnat Larvae       | Topical Drench   | To control fungus gnat larvae infesting containerized plants, dilute Attain Nursery at the rate of 10 - 40 fl oz (0.05 - 0.2 lb AI) per 100 gal of water and apply as a drench at the rate of 8 - 16 fl oz of finished spray per 6" (diameter) container. The media should be treated to the point of saturation, which generally requires 1/5 the volume of the container. | Use the higher application rates for longer periods of control.<br>Use a proportional volume of finished spray for containers less than or greater than 6" in diameter.  |

### APPLICATION RECOMMENDATIONS - Turf (Golf Courses and Sod farms)

**Do not use this product on Golf Courses and Sod Farms in Nassau County or Suffolk County, New York.**

**In New York State, this product may NOT be applied to any grass or turf area within 100 ft of a water body (lake, pond, river, stream, wetland or drainage ditch).**

**In New York State, do make a single repeat application of Attain Nursery if there are signs of renewed insect activity, but not sooner than 2 wks after the first application.**

Attain Nursery may be applied as a surface or subsurface treatment. To get uniform coverage when treating dense and/or long turf foliage use application volumes of up to 10 gal/1,000 sq ft.

For low volume applications (< 2 gal/1,000 sq ft): The treated area should be irrigated with at least 0.25" of water immediately following treatment to ensure control of subsurface pests such as, but not limited to, mole crickets.

**NOTE:** This specimen label is for informational purposes only. All uses may not be approved in all states. See labeling which accompanied product for Directions for Use or call 800-777-8570 for more information. **For automatic specimen label updates, register at [www.wmmg.com](http://www.wmmg.com).**



# Attain<sup>®</sup> Nursery Insecticide/Miticide Microemulsion

## APPLICATION RATES – Turf (Golf Courses and Sod Farms)

Under typical conditions, the application rates listed in the table below will provide control of the pests that are listed. During periods of high pest pressure or for maximum residual control, Attain Nursery can be applied at up to 0.1 lb AI/acre (20 fl oz); (0.2 lb AI/acre or 40 fl oz for ants, imported fire ants and mole crickets.

| Pest  | Pounds AI/Acre    | Application Rate Attain Nursery |                              |
|---|-------------------|---------------------------------|------------------------------|
| Armyworms <sup>3</sup> , Cutworms <sup>3</sup> , Sod Webworm <sup>3</sup>   | 0.05              | 10 fl oz/acre                   | 0.25 fl oz/1,000 sq ft       |
| Annual Bluegrass Weevil (Hyperodes) (Adult) <sup>4</sup> , Ants, Billbugs (Adult) <sup>5</sup> , Black Turfgrass Ataenius (Adult) <sup>6</sup> , Centipedes, Chinch Bugs <sup>7</sup> , Crickets, Earwigs, Fleas (Adult), Grasshoppers, Leafhoppers, Mealybugs, Millipedes, Mites <sup>8</sup> , Mole Cricket (Adult) <sup>9</sup> , Mole Cricket (Nymph) <sup>10</sup> , Pillbugs, Sowbugs | 0.05 - 0.1        | 10 - 20 fl oz/acre              | 0.25 - 0.5 fl oz/1,000 sq ft |
| Fleas (Larvae) <sup>11</sup> , Imported Fire Ants, Japanese Beetle (Adult), Ticks <sup>12</sup>   | 0.1               | 20 fl oz/acre                   | 0.5 fl oz/1,000 sq ft        |
| Ants, Imported Fire Ants <sup>14</sup> , Mole Crickets  | 0.2 <sup>13</sup> | 40 <sup>13</sup> fl oz/acre     | 1 fl oz/1,000 sq ft          |

**Armyworms, Cutworms and Sod Webworms:** Postpone irrigation or mowing for 24 hr following application to obtain the best possible control. Higher treatment rates (up to 0.1 lb AI/acre or 20 fl oz of Attain Nursery) may be necessary if high pest pressure exists and if the turf area is maintained at a height taller than 1".

**Annual Bluegrass Weevil (Hyperodes) Adults:** Treatment of this species should be timed as they travel into grass areas and away from their overwintering sites. Travel usually begins when *Forsythia* is in full bloom and ends when *Cornus florida* (flowering dogwood) is in full bloom. For additional detailed information regarding treatment timing, check with your State Cooperative Extension Service.

**Billbug Adults:** Treatment of adult billbugs should be made when they are first noticed in April and May. To optimize treatment timing, degree day models have been developed. For detailed information particular to your region, check with your State Cooperative Extension Service. Spring treatments for billbug adults will also offer control of overwintered chinch bugs in temperate climates.

**Black Turfgrass Ataenius Adults:** In order to control the 1<sup>st</sup> and 2<sup>nd</sup> generation of black turfgrass ataenius adults, respectively, treatments should take place in May and July. Time the May treatment to match with the full bloom stage of *Vanhoutte spiraea* (*Spiraea vanhoutte*) and horse chestnut (*Aesculus hippocastanum*). Time the July treatment to match with the blooming Rose of Sharon (*Hibiscus syriacus*).

**Chinch Bugs:** Mostly found in the thatch layer, chinch bugs infest the base of turf plants. In order to optimize the penetration of the insecticide to location of the chinch bugs, irrigation of the turf prior to treatment may be necessary. If a long mowing height is being maintained or if the thatch layer is excessive, use higher volume treatments. It may be necessary to use higher application rates (up to 0.1 lb AI/acre or 20 fl oz of Attain Nursery) to control populations made up of both adults and nymphs in midsummer.

**Mites:** Apply Attain Nursery in combination with a labeled rate of a surfactant to achieve optimal control of eriophyid mites. A second application may be needed 5 - 7 days after the first to ensure optimal control.

**Mole Cricket Adults:** Because preferred turf areas are subject to constant invasion during the early spring by this very active stage, it is difficult to attain suitable control of adult mole crickets. Applications should be made as late in the day as possible and should be watered in with up to 0.5" of water immediately following treatment. To bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized, it is imperative to irrigate prior to application if the soil is not moist. To obtain optimum control of subsequent nymph populations (see below), turf areas that receive pressure from adult mole crickets should be treated at peak egg hatch.

**Mole Cricket Nymphs:** Treat those turf areas that are hit with intense adult mole cricket pressure in the spring right before peak egg hatch. Young nymphs are more vulnerable to insecticides at this time because they are close to the soil surface where the insecticide is most concentrated; therefore, the greatest amount of control is reached. In order to sustain adequate control of larger, more damaging, nymphs later in the year, it may be necessary to use higher application rates more often. It is ideal to treat the areas as late in the day as possible and water immediately after treatment with up to 0.5" of water. To get mole crickets nearer to the soil surface where there will be maximum contact, it is necessary to irrigate prior to application if the soil is not moist.

**Flea Larvae:** Immature fleas mature in shaded areas accessible to pets or other animals. When treating these areas use a higher volume treatment so that the insecticide penetrates into the soil.

**Note:** If the lawn area is being treated with Attain Nursery at 0.05 lb AI/acre (10 fl oz) for adult flea control, then the larval application rate can be achieved by doubling the application volume.

**Ticks:** Make application to the entire area where contact with ticks may occur. Do not make spot treatments. When applying to areas with heavy leaf litter or dense ground cover use higher spray volumes. To attain and/or sustain control in times of high pest pressure, retreatments may be necessary; retreat only if signs of continued or renewed tick activity are present. Repeat treatments should not be made more often than once per 7 days. **Deer ticks (*Ixodes sp.*)** have a four stage life cycle spanning 2 yr. Treat in late fall and/or early spring to both larval and nymphal stages present in leaf litter and the soil, and adults living in the grass and low-lying vegetation above ground.

**American dog ticks** invade suburban settings in areas where residences and dwellings are constructed on former fields or wooded areas. These pests normally gather by paths or roadways where they are likely to find a host. To control tick larvae, nymphs and adults, treatments should take place, as needed, from mid spring to early fall.

**Note:** A single application of 0.2 lb AI/acre (40 fl oz of Attain Nursery) may be applied once per year for larger infestations of ants, imported fire ants and mole crickets.

**Imported Fire Ants:** The best control will be achieved by using broadcast treatments in combination with mound drenches. This will control present colonies along with foraging workers and newly mated fly-in queens. It is critical either to use high volume treatments or to irrigate prior to application if the soil is dry. Apply 0.2 lb AI/acre (40 fl oz of Attain Nursery) when making broadcast treatments. For mound drenches, dilute 1 tsp. of Attain Nursery per gallon of water and use 1 - 2 gal of finished dilution using sufficient force to penetrate the top and allow dilution to flood ant channels. Treat a 4 ft diameter around each ant mound. Treatment should take place in cool weather (65 - 80°F) or in the early morning or late evening hours in order to achieve the greatest results.

**Note:** A spray rig that is calibrated to apply 0.2 lb AI/acre (40 fl oz) of Attain Nursery in 5 gal/1,000 sq ft contains the approximate dilution (1 tsp./gal) that is required for fire ant mound drenches in the spray tank.

- Apply with ground application equipment only (and apply with nozzles not more than 2 ft above the turf).
- Do not apply when wind conditions favor downwind drift to nearby water bodies.
- Do not apply when wind velocity exceeds 10 mph.
- Avoid application when wind gusts approach 10 mph.
- Do not apply when a temperature inversion exists.
- Apply using nozzles that provide the largest droplet size compatible with sufficient coverage.
- If rain is expected within 12 hr (or whatever time is necessary for the spray to dry), do not apply for surface feeling pests.
- Do not apply by ground equipment within 25 ft of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.
- Do not apply when turf areas are waterlogged or soil is saturated with water (i.e. will not accept irrigation).

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a cool, dry area that is inaccessible to children, pets and other animals. Store concentrate only in the original container. Never put diluted or concentrated Attain Nursery in containers for food or beverages. When opening containers, take appropriate care to avoid spills. Securely replace lids after partial use.

**SPILLS:** Avoid contact with spills. Keep unprotected people, pets and other animals away from spills. Confine liquid spills by diking with an absorbent material such as cat litter or clay. Cover spills of treated dry materials to prevent contact and dispersion. Put damaged packages into a suitable container large enough to hold the entire package and be appropriately sealed. Mark the holding container to identify its contents and follow disposal directions. For major spills, call 1-800-424-9300 (CHEMTREC).

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Do not contaminate water, food or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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

## A Prescription Treatment<sup>®</sup> brand insecticide distributed by:

Whitmire Micro-Gen Research Laboratories, Inc.

3568 Tree Court Industrial Blvd.

St. Louis MO 63122-6682

www.wmmg.com

© 2006 Whitmire Micro-Gen Research Laboratories, Inc.

**NOTE:** This specimen label is for informational purposes only. All uses may not be approved in all states. See labeling which accompanied product for Directions for Use or call 800-777-8570 for more information. **For automatic specimen label updates, register at www.wmmg.com.**