



GROUP 3 INSECTICIDE

# BIFEN 7.9 HOME & YARD

## INSECTICIDE CONCENTRATE

ACTIVE INGREDIENT:	By Wt.
Bifenthrin*:	7.9%
OTHER INGREDIENTS:	92.1%
TOTAL:	100.0%

Bifen 7.9 Home & Yard contains 2/3 pound active ingredient per gallon.

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

KEEP OUT OF REACH OF CHILDREN  
**CAUTION**



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EPA Reg. No. 53883-118  
EPA Est. No. 53883-TX-002

EPA022218

NET CONTENTS: **ONE QUART**

FIRST AID	
If swallowed	<ul style="list-style-type: none"> <li>• Call a 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 by mouth to an unconscious person.</li> </ul>
If inhaled	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
If on skin or clothing	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
If in eyes	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continuing rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall® (866) 897-8050 for emergency medical treatment information.	
<b>Note to Physician</b> - 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.	

## 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 spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

All pesticide handlers (mixers, loaders, and applicators) must wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves. After the product is diluted in accordance with label directions for use, and/or when mixing and loading using a closed spray tank transfer system, or an in-line injector system, shirt, pants, socks, shoes, and waterproof gloves are sufficient. In addition, all pesticide handlers must wear a respiratory protection device<sup>1</sup> when working in a non-ventilated space. All pesticide handlers must wear protective eyewear when working in non-ventilated space or when applying termiticide by rodding or sub-slab injection.

<sup>1</sup>Use one of the following: NIOSH approved respirator with any R, P or HE filter or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE pre-filter.

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

#### ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems. Care should be used when spraying to avoid fish and reptile pets in/around ornamental ponds. 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 to drift to blooming crops if bees are foraging the treatment area. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other public waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

#### Physical and Chemical Hazards

Do not apply water-based dilutions of Bifen 7.9 Home & Yard to electrical conduits, motor housings, junction boxes, switch boxes or other electrical equipment because of possible shock hazard.

#### DIRECTIONS FOR USE

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

- Do not apply a broadcast application to interior surfaces of homes.
- Do not apply by air.
- Do not apply in nurseries.
- Do not apply this product through any kind of irrigation system.
- Not for use on sod farm turf, golf course turf, or grass grown for seed.
- Do not apply to pets, crops, or sources of electricity.
- Firewood is not to be treated.
- Use only in well-ventilated areas.
- During any application to overhead areas of structure, cover surface below with plastic sheeting or similar material except for soil surfaces in crawlspaces.

- Do not allow spray to contact food, foodstuffs, food-contacting surfaces or food utensils or water supplies.
- Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated by application of this product.
- Do not treat areas where food is exposed.
- During indoor surface applications do not allow dripping or runoff to occur.
- Do not allow contact with treated surfaces by people or pets before spray has dried.
- Bifen 7.9 Home & Yard will not discolor or otherwise harm surfaces that water alone will not discolor or otherwise harm.
- Do not apply this product in patient rooms or in any rooms while occupied by the elderly or infirm.
- Do not apply Bifen 7.9 Home & Yard in classrooms, libraries, sports venues, or other institutional facilities when they are occupied.
- Bifen 7.9 Home & Yard may be applied with low-volume application equipment, including Actisol® and Micro-Injector®, for general surface, spot, crack and crevice, and deep harborage treatments.
- Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended only for aesthetic purposes or climactic modifications and being grown in interior plantscapes, ornamental gardens or parks, or lawns and grounds.

Application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur. Do not allow the product to enter any drain during or after application.

**Additional Application Restrictions for Residential Outdoor Surface and Space Sprays:**

All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

1. Applications to soil or vegetation around structure;
2. Applications to lawns, turf, and other vegetation;
3. Applications to building foundations, up to a maximum height of 3 feet above grade;
4. Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning or other structure;
5. Applications around potential pest entry points into buildings, when limited to a surface band not to exceed one inch in width;
6. Applications made through the use of a coarse, low pressure spray to only those portions of surfaces that are directly above bare soil, lawn, turf, mulch or other vegetation, as listed on this label, and not over an impervious surface, drainage or other condition that could result in runoff into storm drains, drainage ditches, gutters, or surface waters, in order to control occasional invaders or aggregating pests.

Other than applications to building foundations, all outdoor applications to impervious surfaces such as sidewalks, driveways, patios, porches and structural surfaces (such as windows, doors, and eaves) are limited to spot and crack-and-crevice applications, only.

When treating adjacent to an existing structure, the applicator must check the area to be treated, and immediately adjacent areas of the structure, for visible and accessible cracks and holes to prevent any leaks or significant exposures to persons occupying the structure. People present or residing in the structure during application must be advised to remove their pets and themselves from the structure if they see any signs of leakage. After application, the applicator is required to check for leaks. Do not allow people or pets to contact contaminated areas or to reoccupy contaminated areas of the structure until the clean-up is completed.

#### **Use Directions for Tip-N-Measure Container**

1. Remove the measuring chamber cap and induction seal. Replace the cap and securely tighten. Tip container until liquid fills measuring chamber.
2. Return container to level position. No adjustment is needed.
3. Remove measuring chamber cap and dispense into proper application equipment,

For multiple doses measuring: Remove fill chamber cap and dispense according to markings on side of bottle,

#### **Use Directions for Squeeze-N-Measure Container**

1. Remove the measuring chamber cap and induction seal.
2. Replace cap loosely on measuring chamber to allow venting.
3. Squeeze container gently until liquid fills measuring chamber.
4. Remove measuring chamber cap and dispense into proper application equipment.
5. Replace cap onto measuring chamber and securely tighten.

#### **INFORMATION ON THE USE OF THIS PRODUCT**

This product controls a wide spectrum of insects and mites on trees, shrubs, foliage plants, non-bearing fruit and nut trees, and flowers in greenhouses, interiorscapes including hotels, shopping malls, office buildings, etc., and outdoor plantscapes, such as around residential dwellings, parks, institutional buildings, recreational areas, athletic fields and home lawns. Non-bearing crops are perennial crops that will not produce a harvestable raw agricultural commodity during the season of application. This product may also be used in feed and food handling establishments, animal confinement facilities, kennels, confined animal feeding operations, livestock premises, and around/under structures.

#### **RESISTANCE MANAGEMENT**

Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state pest management authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and suspect that resistance is a reasonable cause, immediately consult your local company representative or pest management advisor for the best alternative method of control for your area.

### APPLICATION DIRECTIONS

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended only for aesthetic purposes or climatic modifications and being grown in interior plantscapes, ornamental gardens or parks, or lawn and grounds. Only use this product on plants being grown for aesthetic or climatic purposes and in interior and exterior sites, such as, gardens, parks, lawns, and grounds, and other ornamental sites. Do not use on vegetation intended for sale or other commercial uses. Do not use on plants grown for seed production or research purposes.

### Applications Instructions

Bifen 7.9 Home & Yard controls a wide range of listed pests on flowers, foliage plants, non-bearing fruit and nut trees, shrubs, and ornamental trees, in interior and exterior plantscapes, such as those in hotels, office buildings, shopping malls, etc., and around athletic fields, homes, institutional buildings, parks, and recreational areas. Non-bearing fruit and nut trees are those that will not produce a harvestable crop during the season of application.

Bifen 7.9 Home & Yard can be tank-mixed with insect growth regulators and other pesticides. 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.

**Formula for Determining the Active Ingredient Content of the Finished Emulsion**  
(7.9) (Fl. Oz. of Bifen 7.9 Home & Yard added to tank) = % Active Ingredient in emulsion  
(Gallons of finished spray mix) (128)

#### **Food Handling Establishments**

If used as a general spot, surface, or crack and crevice treatment, Bifen 7.9 Home & Yard may be applied in both food/feed and nonfood areas of food/feed handling establishments.

Bifen 7.9 Home & Yard will provide up to 1 month residual control of house flies. Length of residual control is dependent upon rate and surface treated.

Food/feed handling establishments are any place other than private residences where exposed food/feed is held, processed, prepared or served, including areas for receiving, storing, packing (bottling, boxing, canning, wrapping), preparing, enclosed processing systems (dairies, edible oils, mills, syrups) of food and edible waste storage. Serving areas where food is exposed and the facility is in operation are also considered food areas.

Nonfood areas in which applications are allowed include entries and vestibules, floor drains (to sewers), garages, garbage rooms, lavatories, locker rooms, machine rooms, mop closets, offices, and storage (after canning or bottling).

Permitted use sites include, but are not limited to: aircraft (do not use in aircraft cabins), apartment buildings, bakeries, bottling facilities, breweries, buses, cafeterias, candy plants, canneries, dairy product processing plants, food manufacturing plants, food processing plants, food service establishments, granaries, grain mills, hospitals, hotels, industrial buildings, laboratories, meat/poultry/egg processing plants, mobile/motor homes, nursing homes, offices, railcars, restaurants, schools, ships, trailers, trucks, vessels, warehouses† and wineries.

† WAREHOUSES and GROCERY/PET STORES: Bifen 7.9 Home & Yard dilution may be applied as a surface, spot or crack and crevice treatment in food and nonfood storage warehouses and stores. Apply to all areas that may harbor pests, including under and between pallets, bins, and shelves. **Do not** apply directly to food, grain bins (interior), or animals.

**General Surface Application:** Do not use this application method in food/feed handling establishments when the facility is in operation or foods/feeds are exposed. During treatment, remove or cover all food processing and/or handling equipment and do not apply directly to food products. All equipment, benches, shelving and other surfaces in food processing plants, bakeries, cafeterias and other facilities, which food will contact must be washed after treatment. Clean food handling equipment or processing equipment and rinse completely with fresh, clean water.

**Spot, Crack and Crevice Application:** These types of treatments can be done when the facility is operating, but food must be covered or removed from the treatment area. Do not apply directly to food.

**Foam Applications:** Converting Bifen 7.9 Home & Yard to foam will allow it to be used to treat structural voids. To produce a 0.02% to 0.06% foam concentration, dilute 0.33 to 1.0 fl. oz. of Bifen 7.9 Home & Yard per gallon of water and add the manufacturer's recommended amount of foaming agent. Before application, make sure that the foaming agent is compatible with Bifen 7.9 Home & Yard. Use of a foaming agent increases a.i. surface contact time on challenging surfaces and provides visual marking of the application. Ensure that the foaming agent is approved for food surface/area contact use.

#### **Indoor Uses**

In the home, cover all food processing surfaces and utensils during treatment or thoroughly wash before reuse. Exposed food must be covered or removed. Do not permit humans or pets to contact treated surfaces until the spray has dried.

During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials.

Wear protective clothing, unvented goggles, gloves and respirator, when applying to overhead areas or in poorly ventilated areas. Avoid touching sprayed surfaces until spray has completely dried.

Bifen 7.9 Home & Yard may be used to control ants, carpenter ants, bedbugs, bees, beetles, biting flies, boxelder bugs, centipedes, cicadas, cockroaches, crickets, earwigs, firebrats, fleas, flies, gnats, millipedes, mosquitoes, moths, scorpions, silverfish, sowbugs (pillbugs), spiders (including Black Widow, Brown Recluse and Hobo Spiders), springtails, stink bugs, ticks (including Brown Dog Ticks), Vinegar (Fruit) Flies, and wasps.

In structures and buildings and on modes of transportation, use a 0.02% to 0.06% suspension (0.33 to 1 fl. oz. per gallon of water) using a crack and crevice, pinstream, spot, coarse, low-pressure spray (25 p.s.i. or less) or with a paint brush.

**Indoor Treatments:** Apply where pests hide. These areas include, but are not limited to, baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, stoves, the underside of shelves, and drawers. Treat with a low pressure, coarse, crack and crevice or spot spray. Pay close attention to cracks and crevices. See also "Foam Applications" in the Food Handling Establishments section. Not for use as a space spray.

**Mixing Directions:** See mixing directions in "Pest Control on Outside Surfaces and Around Buildings" section.

To make a dilution for brush or spray treatments:

- Dilute Bifen 7.9 Home & Yard with water.
- Fill sprayer with the required amount of water.
- Add Bifen 7.9 Home & Yard.
- To ensure proper mixing, close sprayer and shake before use.
- Only mix the amount of solution that is necessary for treatment.



In order to achieve and/or maintain control in times of high pest pressure, retreatment may be needed. Repeat application should only take place if there are signs of renewed insect activity and must not exceed one application per 7 days.

**Ants:** Apply to any ant trails, around doors and windows and other places that ants frequent.

**Bedbugs:** Thorough application should be made to crack and crevices where evidence of bed bugs occurs. Areas of application include bed frames, box springs, inside empty dressers and clothes closets and carpet edges, high and low wall moldings and wallpaper edges. Do not use this product on bed linens, pillows, mattresses or clothes. Remove all clothes and other articles from dressers or clothes closets before application. Allow all treated areas to thoroughly dry before use. Bifen 7.9 Home & Yard is not recommended for use as sole protection against bedbugs. If evidence of bedbugs is found in or on mattresses, use products approved for this use.

Use a 0.03% or 0.06% dilution (0.5 to 1 fluid oz. per gallon of water) for residual pest control in buildings and structures and on modes of transport. Apply either as a crack and crevice, pinstream, spot, coarse, low pressure spray (25 psi or less) or with a paint brush. Use the higher rate of application (0.06%) on painted and non-porous surfaces.

**Bees and Wasps:** Apply to nests in late evening when these pests are at rest. Spray nests, entrances to nests and surrounding areas thoroughly. Contact as many insects as possible. Retreat if signs of renewed activity exist. Spray liberally into hiding and breeding places, especially under attic rafters, contacting as many insects as possible.

**Boxelder Bugs, Centipedes, Cicadas, Earwigs, Beetles, Millipedes, Pillbugs, Sowbugs, Springtails, and Stink Bugs:** Treat near doors and windows, storage areas, baseboards and other sites where these pests may be found.

**Cockroaches, Crickets, Firebrats, Flies, Gnats, Moths, Mosquitoes, Scorpions, Silverfish, Spiders, and Ticks:** Bifen 7.9 Home & Yard will provide up to 1 month residual control of house flies. Length of residual control is dependent upon rate and surface treated. Use a coarse low- pressure, crack and crevice or spot spray, paying close attention to cracks and crevices. Treat where pests hide. These areas include, attics and eaves, baseboards, closets, corners, storage areas, around water pipes, doors and windows, behind and under cabinets, furnaces, refrigerators, sinks, stoves, and the underside of shelves and drawers.

**Fleas:** Bifen 7.9 Home & Yard will kill fleas for up to 3 months. Vacuum prior to treatment. Apply as a coarse, low pressure spot or crack and crevice treatment to areas frequented by pets, such as under bedding, rugs, next to furniture. Do not apply Bifen 7.9 Home & Yard dilution directly to pets. Treatment must be dry before pet re-entry.

**Spider Mites:** Treat houseplants thoroughly but do not allow run off to occur. Ensure the underside of leaves is treated.

**Stored Product Pests (Including Indian Meal Moths, Rice Moths, Tobacco Moths, Flour Beetles, Lesser Grain Borers, Merchant Grain Beetles, Sawtoothed Grain Beetles, Grain Weevils, Warehouse Beetles, Cigarette Beetles, and Dermestid Beetles, Psocids, and other similar pests:** Inspect to locate and remove infested food sources, remove or cover any food items or food serving dishes or utensils prior to treatment. Apply Bifen 7.9 Home & Yard using a 0.02 to 0.06% dilution as a coarse, low pressure spray to areas where these pests hide. Treatment areas include baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, and stoves, the underside of shelves, drawers and similar areas. Pay particular attention to cracks and crevices. **Do not** apply directly to food.

#### **Livestock and Poultry Housing Structures**

Controls pests of poultry and livestock facilities, including biting flies, filth-breeding flies, fleas, litter beetles, hide beetles, bed bugs, mites and ticks. Apply as a general surface (including directed spray) and/or crack and crevice treatment. Control is enhanced when interior and exterior perimeter applications are made in and around the livestock or poultry housing structures. Normal cleaning practices of the structure also must be followed along with applications of Bifen 7.9 Home & Yard to effectively control crawling and flying insect pests.

For occupied areas of poultry and livestock facilities, apply to indoor cracks and crevices only. Exterior applications to walls and foundation perimeters can help prevent interior infestations of flying and crawling insect pests. Apply Bifen 7.9 Home & Yard at a rate equivalent to 0.33 to 1 fl. oz per 1,000 sq. feet.

For unoccupied areas of poultry and livestock facilities, apply to floors, vertical and overhead surfaces where crawling or flying insect pests may be present. Feeders, waterers and feed carts must be covered before application to prevent contamination. Do not apply to milk rooms. Pay attention to animal areas including stanchions, pipes, windows, doors and areas where insect pests hide or congregate. Exterior applications to walls and foundation perimeters can help prevent interior infestations of flying and crawling insect pests. Apply Bifen 7.9 Home & Yard at a rate equivalent to 0.33 to 1 fl. oz per 1,000 sq. feet.

To control bed bugs, mites and ticks in animal facilities, treat cracks/crevices, walls, posts, nest boxes and mobile side curtains. **Do not** apply Bifen 7.9 Home & Yard directly to animals.

For adult fly control in and around animal facilities, spray application should target areas where flies will rest, such as the ceiling, rafters and trusses. Also treat windows, interior and exterior walls and supports, fences and vegetation. Bifen 7.9 Home & Yard suspension may be sprayed on manure in areas where fly larvae are abundant and the area cannot be cleaned.

For poultry houses, apply to floor area (birds grown on litter) or to walls, posts and cage framing (birds grown in cages). Application should also be made into cracks and crevices around insulation. Reapply after each grow out or de-caking and sanitization procedure, but not more

frequently than every 8 weeks. Indoor control can be enhanced by making perimeter treatments around the outside of building foundations to prevent immigrating adult beetles. Apply in a uniform band 2 to 3 feet up and 6 to 10 feet out from the structure. Maintaining a year-round treatment program will prevent background populations from reaching problem levels.

To control beetles in houses containing birds grown on litter apply Bifen 7.9 Home & Yard at a rate equivalent to 0.33 to 1 fl. oz per 1,000 sq. feet to litter after birds are removed and during tilling. If litter is removed and replaced with fresh litter, apply Bifen 7.9 Home & Yard at a rate equivalent to 0.33 to 1 fl. oz per 1,000 sq. feet to bare soil or concrete, and treat new litter after it is spread. Apply spray to inside walls, posts and exterior perimeter. Reapply between each flock.

To control beetles in broiler-breeder houses, apply as directed above for litter and soil/floor treatment.

To control beetles in caged-layer houses, do not treat accumulated manure as it will likely disrupt natural enemies that control fly breeding. Instead, treat the perimeter of the manure at a rate equivalent to 0.33 to 1 fl. oz of Bifen 7.9 Home & Yard per 1,000 sq. feet. Pit walls, posts and exterior of structure should also be sprayed. Reapply between each flock.

Allow Bifen 7.9 Home & Yard treatment to dry before applying disinfectants.

**Insecticide Class Rotations:** In order to avoid problems with developed resistance to insecticides it is important to rotate to an insecticide of a different class each 2-3 flocks. It is best to attempt to use 3 different classes of insecticides during a calendar year.

DO NOT apply Bifen 7.9 Home & Yard as a general surface spray when animals are present in the facility. Allow applications to dry before restocking the facility. Treatment may be made to cracks and crevices when animals are present.

DO NOT apply Bifen 7.9 Home & Yard to any animal feed, water or watering equipment.

DO NOT contaminate any animal feed, food or water in and around livestock or poultry housing when making applications.

#### **Lawns**

Use Bifen 7.9 Home & Yard as a broadcast treatment. To accomplish uniform control when applying to dense grass foliage, use volumes of up to 10 gallons per 1000 square feet.

To ensure control of sub-surface pests including Mole Crickets using low volume treatments, (i.e. less than 2 gallons per 1000 square feet), immediately follow the treatment with irrigation of the treated area with at least 0.25 inches of water.

#### **Lawn Application Rates**

Under typical conditions, the application rates shown in the table below will provide control of the listed pests. Bifen 7.9 Home & Yard may, however, be applied at up to 1 fl. oz. per 1000 square feet at the discretion of the applicator. Maximum residual control requires the higher treatment rates.

Pest	Application Rate Bifen 7.9 Home & Yard
Armyworms <sup>1</sup> Cutworms <sup>1</sup> Sod Webworm <sup>1</sup>	0.18 - 0.25 fluid oz. per 1000 sq. ft.
Annual Bluegrass Weevil (Hyperodes) (Adult) <sup>2</sup> Banks Grass Mite <sup>6</sup> Billbugs (Adult) <sup>3</sup> Black Turfgrass Ataenius Adult <sup>4</sup> Centipedes Crickets Earwigs Fleas (Adult) Grasshoppers Leafhoppers Mealybugs Millipedes Mites <sup>6</sup> Pillbugs Sowbugs	0.25 - 0.5 fluid oz. per 1000 sq. ft.
Crane Flies <sup>12</sup>	0.5 fl oz. Per 1000 sq. Ft.
Ants Chinch Bugs <sup>5</sup> Fleas (Larvae) <sup>7</sup> Imported Fire Ants <sup>8</sup> Japanese Beetle (Adult) Mole Cricket (Adult) <sup>9</sup> Mole Cricket (Nymph) <sup>10</sup> Stink Bugs Ticks <sup>11</sup>	0.5 - 1.0 fluid oz. per 1000 sq. ft.

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

In New York State, do make a single repeat application of Bifen 7.9 Home & Yard if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

## Notes

**Armyworms, Cutworms, and Sod Webworms:** Postpone irrigation or mowing for 24 hours after application to obtain the best possible control. Higher treatment rates (up to 1 fluid oz. per 1000 square feet) may be necessary if high pest pressure exists and if the grass is maintained taller than 1 inch.

**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 over-wintered chinch bugs in temperate climates.

**Black Turfgrass *Ataenius* adults:** In order to control the 1st and 2nd generation of black turfgrass *ataenus* 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 grass plants. In order to optimize the penetration of the insecticide to location of the chinch bugs, irrigation of the grass prior to treatment may be necessary. If grass is being kept at a long mowing height or if the thatch layer is excessive, use higher volume treatments. It may be necessary to use higher application rates (up to 1 fluid oz. per 1000 square feet) to control populations made up of both adults and nymphs in mid-summer.

**Mites:** Apply Bifen 7.9 Home & Yard in combination with a labeled rate of a surfactant to achieve optimal control of eriophyid mites. A second application may be needed 5 to 7 days after the first to ensure optimal control.

**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 adult fleas on lawn areas are being controlled by applying Bifen 7.9 Home & Yard at a rate of 0.25 fl. oz. per 1000 square feet, then the rate of larval application can be accomplished by two- to four-fold increase in spray volume.

**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 1 fl. oz. per 1,000 square feet when using broadcast treatments. For mound drenches, dilute 1 teaspoon of Bifen 7.9 Home & Yard per

gallon of water and use 1 to 2 gallons of finished dilution using sufficient force to penetrate the top and allow dilution to flood ant channels. Treat a four-foot diameter around each ant mound. Application should be made in late evening or early morning when it is cooler (65° - 80° when insects are most active. NOTE: A spray rig calibrated to apply 1 fluid oz. per 1,000 square feet of Bifen 7.9 Home & Yard in 5 gallons per 1,000 square feet contains the equivalent dilution (1 teaspoon per gallon) required for fire ant mound drenches in the spray tank.

**<sup>9</sup>Mole Cricket adults:** Since the preferred grass areas are subject to constant invasion in early spring by the active adult stage, it is can be difficult maintain control of adult mole crickets. It is ideal to treat the areas as late in the day as possible and water immediately after application with up to 0.5 inches of water. To ensure maximum contact when soil is dry, it is necessary to irrigate prior to treatment to bring the adult mole crickets closer to the soil surface. To obtain optimal control of potential nymphal populations, the grass areas preferred by adult mole crickets should be treated at immediately prior to peak hatch stage. (See note 10 below).

**<sup>10</sup>Mole Cricket nymphs:** Treat grass areas that are preferred by adult mole crickets in the spring just before peak egg hatch. Young nymphs are more vulnerable to insecticidal treatment at this stage because they are close to the soil surface where the insecticide is most concentrated and thereby providing the most efficient control. For larger more damaging nymphal stages later in the year, it may be necessary to use higher application rates more frequent. It is ideal to treat the areas as late in the day as possible and water immediately after application with up to 0.5 inches of water. To ensure maximum contact when soil is dry, it is necessary to irrigate prior to treatment to bring the adult mole crickets closer to the soil surface.

**<sup>11</sup>Ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever):** 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 must not be made more often than once per 7 days. Deer ticks (ixodes sp.) have a four-stage life cycle spanning 2 years. 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.

**<sup>12</sup>Crane Flies:** Treatments can be made to control early to mid-season larvae (approximately August-February) as they feed on plant crowns. Treatments made to late-season larvae (approximately March, April) may only provide suppression.

Bifen 7.9 Home &amp; Yard Lawn Dilution Chart

Application Volume:	Application Rate:	Fluid Ounces* of Bifen 7.9 Home & Yard Diluted to these Volumes of Finished Spray			
Gallons Per 1,000 Sq. Ft.	Fluid Ounces per 1,000 Sq. Ft.	1 gallon	5 gallons	10 gallons	100 gallons
1.0	0.18	0.18	0.90	1.8	18.0
1.0	0.25	0.25	1.25	2.5	25.0
1.0	0.5	0.5	2.5	5.0	50.0
1.0	1.0	1.0	5.0	10.0	100.0
2.0	0.18	-	0.45	0.90	9.0
2.0	0.25	0.13	0.63	1.25	12.5
2.0	0.5	0.25	1.25	2.5	25.0
2.0	1.0	0.5	2.5	5.0	50.0
3.0	0.18	-	0.30	0.60	6.0
3.0	0.25	-	0.42	0.83	8.3
3.0	0.5	0.17	0.83	1.67	16.7
3.0	1.0	0.33	1.67	3.33	33.3
4.0	0.18	-	0.23	0.45	4.5
4.0	0.25	-	0.31	0.63	6.3
4.0	0.5	0.13	0.63	1.25	12.5
4.0	1.0	0.25	1.25	2.5	25.0
5.0	0.18	-	0.18	0.36	3.6
5.0	0.25	-	0.25	0.5	5.0
5.0	0.5	0.1	0.5	1.0	10.0
5.0	1.0	0.2	1.0	2.0	20.0
10.0	0.18	-	-	0.18	1.8
10.0	0.25	-	0.13	0.25	2.5
10.0	0.5	-	0.25	0.5	5.0
10.0	1.0	0.1	0.5	1.0	10.0

\*To convert to millimeters, multiply by 29.57

1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Bifen 7.9 Home & Yard.

#### Ornamentals and Trees

Treat with 0.125 to 1.0 fl. oz. of Bifen 7.9 Home & Yard per 1,000 square feet or 5.4 to 43.5 fl. oz. per 100 gallons for ornamental applications. As long as the highest label rate (1.0 fl. oz. per 1000 square feet or 43.5 fl. oz. per 100 gallons) is not exceeded, Bifen 7.9 Home & Yard can be diluted and used in different volumes of water. If diluted with water or other carriers, low volume equipment can be used for application as long as the highest label rate (1.0 fl. oz. per 1000 square feet or 43.5 fl. oz. per 100 gallons) is not exceeded.

Treat as a full coverage foliar spray using the stated application rate. If pest pressure and density of foliage increases, repeat treatments using higher rates may be needed to reach the desired control. Repeat treatments must not be made more often than once per 7 days.

Before application to entire planting, test treat a small number of plants and watch for signs of sensitivity. Some plant species may be sensitive to the final spray solution.

To avoid or delay pest resistance, it is recommended to use an alternate class of pesticide in any application program.

#### Greenhouses and Interiorscapes

Use this product, either alone or tank mixed with other products, including insect growth regulators, to control a wide spectrum of insects and mites on trees, shrubs, foliage plants, non-bearing fruit and nut trees, and flowers in greenhouses and interiorscapes including hotels, shopping malls, office building, etc.

Bifen 7.9 Home & Yard Ornamental Dilution Chart

Application Volume: Gallons Per		Application Rate: Fl. Oz. per	Fluid Ounces* of Bifen 7.9 Home & Yard Diluted to these Volumes of Finished Spray			
1,000 sq. ft.	Acre		1 gallons	5 gallons	10 gallons	100 gallons
2.3	100	0.125	-	0.27	0.54	5.4
2.3	100	0.25	0.11	0.54	1.08	10.8
2.3	100	0.5	0.22	1.09	2.17	21.7
2.3	100	1.0	0.44	2.17	4.35	43.5
4.6	200	0.125	-	0.14	0.27	2.7
4.6	200	0.25	-	0.27	0.54	5.4
4.6	200	0.5	0.11	0.54	1.09	10.9
4.6	200	1.0	0.22	1.09	2.17	21.7
6.9	300	0.125	-	-	0.18	1.8
6.9	300	0.25	-	0.18	0.36	3.6
6.9	300	0.5	-	0.36	0.72	7.2
6.9	300	1.0	0.15	0.72	1.45	14.5

\*To convert to millimeters, multiply by 29.57



300 gallons per acre is a typical application volume for landscape ornamental applications.  
1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons  
Do not use household utensils to measure Bifen 7.9 Home & Yard.

**Calculating Dilution Rates using the Ornamental Application Rates Table and the Bifen 7.9 Home & Yard Ornamental Dilution Chart:** To determine the proper dilution of Bifen 7.9 Home & Yard that is required to control specific pests, follow the steps below:

1. Determine the target pest that is the least susceptible (i.e., the pest that requires the highest application rate for effective control).
2. Choose a treatment rate in terms of fl. oz. of Bifen 7.9 Home & Yard.
3. Determine the dilution volume necessary for the treatment.
4. Use the proper amount of Bifen 7.9 Home & Yard that must be mixed in your preferred volume of water as shown in the Ornamental Dilution Chart.

As an example, if you were treating for Cutworms, the Ornamental Application Rates table shows that 0.125 – 0.25 fluid ounces of Bifen 7.9 Home & Yard should be applied per 1,000 square feet. Select the application rate of 0.25 fluid oz. per 1,000 square feet due to evidence of high pest pressure. The application volume is determined to be 300 gallons per acre, which is equivalent to 6.9 gallons per 1,000 square feet. The corresponding value in the Ornamental Dilution Chart shows that 0.36 fluid oz. of Bifen 7.9 Home & Yard must be mixed with 10 gallons of water.

**Ornamental Application Rates**

Under typical conditions, the application rates in the table below will offer optimal control of the listed pests, but Bifen 7.9 Home & Yard can be used at up to 1 fl. oz. per 1000 square feet (43.5 fl. oz. per 100 gallons) at the discretion of the applicator. When maximum residual control is preferred, higher listed treatment rates are necessary.

Pest	Application Rate Bifen 7.9 Home & Yard	
	Fluid Ounces per 1,000 square ft.	Fluid Ounces per 100 gallons
Bagworms <sup>1</sup> Cutworms Elm Leaf Beetles Fall Webworms Gypsy Moth Caterpillars Lace Bugs Leaf Feeding Caterpillars Tent Caterpillars	0.125 - 0.25	5.4 - 10.8

(continued)

Pest	Application Rate Bifen 7.9 Home & Yard	
	Fluid Ounces per 1,000 square ft.	Fluid Ounces per 100 gallons
Adelgids <sup>1</sup> Aphids Bees Beet Armyworm Beetles <sup>2,1</sup> Black Vine Weevil (Adults) Brown Soft Scales Broad Mites Budworms California Red Scale (Crawlers) <sup>13</sup> Centipedes Cicadas <sup>1</sup> Citrus Thrips Clover Mites Crickets Diaprepes (Adults) Earwigs European Red Mite Flea Beetles Fungus Gnats (Adults) Grasshoppers Japanese Beetle (Adult) <sup>1</sup> Leafhoppers Leafrollers Mealybugs Millipedes Mites Orchid Weevil Pillbugs Pine Needle Scales (Crawlers) <sup>2</sup> Plant Bugs (Including <i>Lygus</i> spp.) Psyllids <sup>1</sup> San Jose Scales (Crawlers) <sup>2</sup> Scorpions	0.25 - 0.5	10.8 - 21.7

(continued)

Pest	Application Rate Bifen 7.9 Home & Yard	
	Fluid Ounces per 1,000 square ft.	Fluid Ounces per 100 gallons
Sowbugs Spider Mites <sup>3</sup> Spiders Spittlebugs <sup>†</sup> Thrips Tip Moths Treehoppers <sup>†</sup> Twig Borers <sup>2</sup> Wasps Weevils <sup>2</sup> Whiteflies	0.25 - 0.5	10.8 - 21.7
Ants Imported Fire Ants** Leafminers Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Sawfly larvae Spider Mites <sup>3</sup> Stink Bugs	0.5 - 1.0	21.7 - 43.5
Mosquitoes	See directions for use in mosquito control in the section titled "Mosquito Control"	

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

<sup>2</sup>**Beetles, Scale Crawlers, Twig Borers, and Weevils:** Apply to plant foliage; also treat trunks, stems, and twigs.

<sup>3</sup>**Spider Mites:** Apply during spring and mid-summer for most effective control of twospotted spider mites. During mid- to late-summer it may be necessary to make more frequent treatments, possibly at higher rates suitable control. Control may be enhanced by adding a surfactant or horticultural oil or by combining Bifen 7.9 Home & Yard with other products registered to control mites. Applications of Bifen 7.9 Home & Yard may be alternated with chemicals offering other modes of action delay or prevent control resistance by twospotted spider mites. For recommendations on resistance management in your region check with your local Cooperative Extension Service.

\*\*For foraging ants.

<sup>†</sup>Not for use in California.

#### Pest Control on Outside Surfaces and Around Buildings

Follow Additional Application Restrictions for Residential Outdoor Surface and Space Sprays under DIRECTIONS FOR USE.

Bifen 7.9 Home & Yard will provide up to 1 month residual control of house flies. Length of residual control is dependent upon rate and surface treated.

Applications to vertical exterior surfaces (e.g., foundations) are permitted to a maximum height of 3 feet from ground level. Sections of vertical exterior surfaces that abut non-porous horizontal surfaces can only be treated if either 1) these sections are protected from rainfall and spray from sprinklers or 2) they do not drain into a sewer, storm drain, or curbside gutter (e.g., not to sections that abut driveways or sidewalks that drain into streets.)

Bifen 7.9 Home & Yard may be used to control Ants, including Carpenter Ants and Fire Ants, Armyworms, Lady Beetles, Bees, Beetles†, Biting Flies, Boxelder Bugs, Centipedes, Chiggers, Chinch Bugs, Cicadas, Clover Mites, Crickets, Cutworms, Dichondra Flea Beetles, Earwigs, Elm Leaf Beetles, Firebrats, Fleas, Flies, Gnats, Grasshoppers, Hornets, Japanese Beetles†, Midges, Millipedes, Mosquitoes, Moths, Roaches (including Cockroaches), Scorpions, Silverfish, Sod Webworms, Sowbugs (Pillbugs), Spider Mites, Spiders (including Black Widow, Brown Recluse and Hobo Spiders), Springtails, Stink Bugs, Ticks (including Brown Dog Ticks), Vinegar (Fruit) Flies and Wasps.

†Not for use in California.

Use a 0.02 to 0.06% dilution to spray the outside surfaces of buildings such as private homes, duplexes, townhouses, condominiums, house trailers, apartment complexes, carports, garages, fence lines, storage sheds, barns, and other residential and non-commercial structures. Sites of treatment include, but are not limited to, exterior siding, foundations, porches, window frames, eaves, patios, garages, garbage areas, lawn areas, trunks of trees and shrubs and other areas where pests may be found. Use a spray volume of up to 10 gallons of emulsion per 1,000 square feet. Use higher dilution volumes if vegetation or landscape materials are dense.

#### Mixing Directions

Suspension	Bifen 7.9 Home & Yard per gallon of water	Remarks
0.02%	0.33 fl. oz.	-Do not use household utensils to measure Bifen 7.9 Home & Yard.
0.06%	1.0 fl. oz.	-Use higher treatment rates for quicker knockdown or longer residual control. -High pest pressure may require subsequent applications. -Repeat application only if there is evidence of renewed insect activity and not more than once per 7 days.

**Perimeter Treatment:** Treat a band of soil and vegetation 6 to 10 feet wide around and next to the structure and the foundation of the structure to a height of 2 to 3 feet. Use 0.33 to 1.0 fluid oz. of Bifen 7.9 Home & Yard per 1,000 square feet in enough water to provide sufficient coverage (refer to Perimeter Application Dilution Chart).

**Broadcast Treatment of Wood for the Control of Wood-infesting Insects and Nuisance Pests Outside of Structures**

Apply a 0.06% dilution with a fan spray using a maximum pressure of 25 psi. Treatment should be made to thoroughly and uniformly cover the surface but limit excess runoff.

For sections of foundation that abut non-porous horizontal surfaces, the treated areas must be protected from rainfall and spray from sprinklers or they do not drain into a sewer, storm drain, or curbside gutter (e.g. not to sections that abut driveways or sidewalks that drain into streets.)

**Bifen 7.9 Home & Yard Perimeter Application Dilution Chart**

Application Volume: Gallons Per	Application Rate: Fluid Ounces Per	Fluid Ounces* of Bifen 7.9 Home & Yard Diluted to these Volumes of Finished Spray			
1000 sq. ft.	1000 sq. ft.	1 gallon	5 gallons	10 gallons	100 gallons
1	0.33	0.33	1.67	3.33	33.3
1	0.5	0.5	2.5	5.0	50.0
1	0.67	0.67	3.33	6.67	66.7
1	0.75	0.75	3.75	7.5	75.0
1	1.0	1.0	5.0	10.0	100.0
2	0.33	0.17	0.83	1.65	16.5
2	0.5	0.25	1.25	2.5	25.0
2	0.67	0.33	1.67	3.35	33.5
2	0.75	0.38	1.88	3.75	37.5
2	1.0	0.5	2.5	5.0	50.0
3	0.33	0.11	0.55	1.10	11.0
3	0.5	0.17	0.83	1.67	16.7
3	0.67	0.22	1.11	2.23	22.3
3	0.75	0.25	1.25	2.5	25.0
3	1.0	0.33	1.67	3.33	33.3
4	0.33	-	0.41	0.83	8.3
4	0.5	0.13	0.63	1.25	12.5
4	0.67	0.17	0.84	1.67	16.7
4	0.75	0.19	0.94	1.88	18.8
4	1.0	0.25	1.25	2.5	25.0

(continued)

Application Volume: Gallons Per	Application Rate: Fluid Ounces Per	Fluid Ounces* of Bifen 7.9 Home & Yard Diluted to these Volumes of Finished Spray			
1000 sq. ft.	1000 sq. ft.	1 gallon	5 gallons	10 gallons	100 gallons
5	0.33	-	0.33	0.67	6.7
5	0.5	0.1	0.5	1.0	10.0
5	0.67	0.13	0.67	1.33	13.3
5	0.75	0.15	0.75	1.5	15.0
5	1.0	0.2	1.0	2.0	20.0
10	0.33	-	0.17	0.33	3.3
10	0.5	-	0.25	0.5	5.0
10	0.67	-	0.33	0.67	6.7
10	0.75	-	0.38	0.75	7.5
10	1.0	0.1	0.5	1.0	10.0

\*To convert to milliliters, multiply by 29.57

1 fluid oz. = 29.57 ml = 2 tablespoons = 6 teaspoons

**Do not use household utensils to measure Bifen 7.9 Home & Yard.**

**Fire Ants and Fire Ant Mounds Outdoors:** Control is optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound drenches that will control existing colonies. If the soil is dry, then it is important to irrigate before application or use a high volume application. Apply broadcast treatments at 0.6 to 1 fluid oz. per 1,000 square feet. Use enough finished volume to penetrate thatch or sod. Treat mounds by applying 1 oz Bifen 7.9 Home & Yard per mound in 1 to 2 gallons water by sprinkling the mound until it is wet and treat 3 feet out around the mound. Use the higher volume for mounds larger than 12. Treat mounds with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. For best results, apply in cool weather (65 - 80°F) or in early morning or late evening hours.

#### Mosquito Control

To control adult mosquitoes outdoors on residential, institutional, public, commercial and industrial buildings, and lawns, ornamentals, parks, recreational areas and athletic fields.

Apply Bifen 7.9 Home & Yard for mosquito control at an application rate of 0.33 to 1.0 fluid oz. Bifen 7.9 Home & Yard per gallon of water (0.07 to 0.22 lbs Bifenthrin/acre), and apply at the rate of one gallon of dilution per 1,000 square feet as a general spray (refer to the Bifen 7.9 Home & Yard Dilution Chart). Use the high rate for residual control of mosquitoes. Use this product for control of mosquitoes that may potentially transmit malaria, and arboviruses (West Nile Fever, dengue fever, Eastern equine encephalitis, and St. Louis encephalitis.)

Apply as a residual spray to outside spray to outside surfaces of buildings including but not limited to, exterior siding, foundations, porches, window frames, eaves, patios, garages, refuse dumps, lawns such as grass areas adjacent to or along private homes, duplexes, townhouses, condominiums, house trailers, apartment complexes, carports, fence lines, storage sheds, barns, and other commercial, residential and non commercial structures, soil, trunk of woody ornamentals, trees, shrubs, ground cover, bedding plants, foliage plants, flowers, non-bearing fruit and nut trees, urban areas, parks, campsites, athletic fields, playgrounds, recreational and overgrown waste areas, roadsides and other areas where mosquitoes are found. May also be applied to non-bearing crops or perennial crops that will not produce harvestable raw agricultural commodities during the season of application.

Use the high rate for heavy pest infestation, quicker knockdown, or longer residual control. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure, or if there are signs of renewed insect activity. For the lower use rates, repeat application must be limited to no more than once per seven days. For the high use rate of 1.0 fluid oz. Bifen 7.9 Home & Yard per gallon of water, do not apply more than once per four weeks.

Apply with hand-held and back pack sprayers or mist blowers, ground sprayers, power sprayers, truck mounted hydraulic sprayers or mist blowers. Do not apply by air or with hand held or truck mounted cold aerosol ULV sprayers and thermal fogging devices. For best results apply when the mosquitoes are most active. Application during the cooler hours of the night or early mornings is recommended.

Do not apply more than 1.0 fluid oz. of Bifen 7.9 Home & Yard per 1,000 square feet (equivalent to 0.22 lbs. Bifenthrin/acre) per application.

Do not apply when wind speed exceeds 10 MPH.

## Other Pest Control Applications

### Controlling Ants Indoors and Outdoors

**Pest Ants Indoors:** Apply to ant nests for best results. Apply a dilution of 0.5 to 1.0 fl. oz. of Bifen 7.9 Home & Yard per gallon of water at the rate of one gallon of dilution per 1000 square feet to places where ants have been seen or are believed to forage as a general surface, spot or crack and crevice treatment. Some of these areas include baseboards, cracks and crevices, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks and stoves, around pipes, and in corners. Pay close attention when treating entry points into the home or around windows and doors. When combining liquid Bifen 7.9 Home & Yard treatments with bait treatments, use Bifen 7.9 Home & Yard as instructed above and apply baits in those areas where Bifen 7.9 Home & Yard has not been applied.

**Pest Ants Outdoors:** Apply to ant nests for best results. Treat ant trails, around windows and doors, and other places where ants have been seen or are likely to forage. As stated in the "Pest

Control on Outside Surfaces and Around Buildings” section, treat using a low or high volume perimeter treatment depending on density of vegetation and landscaping materials. When treating concrete surfaces, more frequent treatments, higher dilutions and/or application volumes may be needed for ant control. The following procedures must be followed to help achieve maximum control of the pest: Dilute 0.5 to 1.0 fl. oz. of Bifen 7.9 Home & Yard per gallon of water and applying at a rate of up to 10 gallons of dilution per 1,000 square feet for maximum residual control.

1. Vegetation and porous surfaces should be treated with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Bifen 7.9 Home & Yard per 1,000 square feet (refer to the Ornamental and Perimeter Application Dilution Charts).
2. Treat non-porous surfaces with low volume applications using 0.5 to 1.0 fluid oz. of Bifen 7.9 Home & Yard per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.

**Carpenter Ants Indoors:** Treat areas where carpenter ants are seen or are predicted to forage, such as, baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks, and stoves, around pipes, cracks and crevices, and in corners by diluting 0.5 to 1.0 fluid oz. of Bifen 7.9 Home & Yard per gallon of water and applying at the rate of one gallon of dilution per 1,000 square feet as a general surface, crack and crevice, spot and/or foam application. Spray or foam into cracks and crevices or drill holes and spray, mist or foam into voids and galleries where carpenter ants or their nests are present. When combining liquid Bifen 7.9 Home & Yard treatments with bait treatments, use Bifen 7.9 Home & Yard as instructed above and apply baits in those areas where Bifen 7.9 Home & Yard has not been applied.

**Carpenter Ants Outdoors:** Treat carpenter ant nests for best results. Treat areas where carpenter ants are seen or are believed to forage, such as ant trails, and around doors and windows. As stated in the “Pest Control on Outside Surfaces and Around Buildings” section, treat using a low or high volume perimeter treatment. When treating concrete surfaces, more frequent treatments, higher dilutions and/or application volumes may be needed for carpenter ant control. The following procedures must be followed to help achieve maximum control of the pest:

1. Dilute 0.5 to 1.0 fl. oz. of Bifen 7.9 Home & Yard per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 square feet to obtain residual control.
2. Vegetation and porous surfaces should be treated with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Bifen 7.9 Home & Yard per 1,000 square feet (refer to the Ornamental and Perimeter Application Dilution Charts).
3. Treat non-porous surfaces with low volume applications using 0.5 to 1.0 fluid oz. of Bifen 7.9 Home & Yard per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
4. Use 0.5 to 1.0 fl. oz. of Bifen 7.9 Home & Yard per gallon of water on tree trunks with carpenter ant trails or evidence of foraging. Apply to the bark, completely wetting it from the bottom of the tree to the highest possible point on the trunk.



To control carpenter ants inside deck materials, fencing, trees, utility poles or other structural elements, drill to find the inside infested cavity and inject or foam a 0.06% dilution (1.0 fl. oz. of Bifen 7.9 Home & Yard per gallon of water) into the cavity with adequate volume and a proper treatment tool with a splash-back guard. Where there are ants tunneling below the surfaces, dilute 0.5 to 1.0 fl. oz. of Bifen 7.9 Home & Yard per gallon of water and applying as a drench or foam at intervals of 8 to 12 inches. A uniform barrier should be established where there are ants tunneling below surfaces such as, at the edges of walls, driveways or other hard surfaces.

Use a sprinkling can or a hose-end sprayer to distribute a coarse drenching spray, apply a 0.06% dilution to stored lumber and wood piles. This wood may be used for lumber or may be burned after 30 days. Do not use this method of application in structures.

Diluting 1.0 fluid oz. of Bifen 7.9 Home & Yard per gallon of water and applying to the soil below where the firewood will be stacked at the rate of one gallon of dilution per 8 square feet will protect the wood from carpenter ants.

DO NOT treat firewood with this product.

#### **Pests Under Slabs**

To control infestations of Arthropods (e.g., ants, cockroaches, and scorpions) that live beneath the slab area, drill or horizontally rod and inject 1 gallon of a 0.06% to 0.12% dilution per 10 square feet or 2 gallons of dilution per 10 linear feet

#### **Posts, Poles, and Other Constructions**

Around wooden constructions (signs, fences, and landscape ornamentation) an insecticidal barrier can be established by treating with a 0.06% dilution. Sub-surface injection and gravity-flow through holes in the bottom of the trench, are two treatment methods that can be used on poles and posts that have already been installed. Establishing a complete chemical zone around the pole can be accomplished by treating on all sides. For poles and posts that are fewer than 6 inches in diameter use 1 gallon of dilution per foot of depth and 1.5 gallons for larger poles, applying under the wood to a depth of 6 inches. 4 gallons per 10 linear feet per foot of depth should be used for larger constructions.

#### Control of Wood-Infesting Insects in Wood (Localized Areas in Structures)

Insects	Application Rate	Remarks
Ants Carpenter Ants Wood-infesting beetles (including but not limited to Old House Borer & Powder Post)	Apply a 0.06% dilution to voids and galleries in damaged wood and in spaces between wooden members of a structure and between wood and foundations where wood is at risk.	-Can be applied as a paint or fan spray. -Place plastic sheeting under overhead areas that are spot treated except for soil surfaces in crawl spaces. -Areas to which access is difficult can be treated by drilling, and then injecting dilution with a crack and crevice injector into the damaged wood or void spaces. (Not intended as a replacement for soil treatment, mechanical alteration or fumigation to control widespread infestation of wood-infesting insects.

#### Control of Wood-Infesting Insects and Nuisance Pests (Outside of Structures)

In order to control wood-infesting insects active inside trees, utility poles and/or fences, a 0.06% dilution should be injected into the infested cavity, which can be found by drilling into the wood. If treating nuisance pests on the exterior of the structure, use a fan spray at a maximum pressure of 25 p.s.i. and apply up to the point of runoff. To control Bees, Wasps, Hornets, and Yellow-Jackets, direct the spray at nest openings in the ground, bushes, and in cracks and crevices, where the insects may nest. Saturate the openings and contact as many insects as possible.

**Underground Services** (e.g. cables, conduits, pipes, utility lines, wires, etc.) may be in right-of-ways, inside of structures or to guard long range (miles) of installations of services.

Treat the soil using a 0.06 to 0.12% Bifen 7.9 Home & Yard dilution to prevent and control ant infestations.

Treat the bottom of the trench with 2 gallons of dilution per 10 linear feet and let it soak into the soil. Place the services on the treated soil and cover with about 2 inches of fill soil. Apply another 2 gallons per 10 linear feet over the fill soil to complete the chemical barrier. Only treat the soil in the area near the services in wide trenches, but ensure a continuous barrier of treated soil surrounding the services.

In the event that the soil will not accept the volume stated above, 1 gallon of 0.12% Bifen 7.9 Home & Yard may be applied per 10 linear feet of trench over the soil that covers the services and to the base of the trench.

Fill the remainder of the trench with the treated fill soil. Where each service sticks out of the ground, the soil may be treated by trenching/rodding no more than 1 to 2 gallons of dilution into the soil.

**RESTRICTIONS:** Do not treat electrically active underground services.

## STORAGE AND DISPOSAL

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

**STORAGE AND SPILL PROCEDURES:** Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spillage or leakages, soak up with an absorbent material such as sand, sawdust, earth, Fuller's earth, etc. Dispose of with chemical waste.

**PESTICIDE DISPOSAL:** Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.

### CONTAINER HANDLING:

**For Containers equal to or less than 5 Gallons:** 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  $\frac{1}{4}$  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. If recycling is not available, puncture or dispose of in a sanitary landfill.

#### LIMITATION OF WARRANTY AND LIABILITY

Read the entire direction for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES, and LIMITATIONS OF LIABILITY.**

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risk associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Control Solutions, Inc. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, Control Solutions, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Control Solutions, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Control Solutions, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Control Solutions, Inc election, the replacement of product.

Control Solutions, Inc.  
5903 Genoa-Red Bluff Road  
Pasadena, TX 77507-1041



# BIFEN 7.9 HOME & YARD INSECTICIDE CONCENTRATE

For prevention and control of carpenter ants and other pests of structures. To control pests in and around such areas as homes, commercial and industrial buildings, recreational areas, athletic fields, lawns and ornamentals. Controls pests in livestock and poultry houses.

**ACTIVE INGREDIENT:** Bifenthrin\* 7.9%  
BY WT.

**OTHER INGREDIENTS:** 92.1%  
**TOTAL:** 100.0%  
Bifen 7.9 Home & Yard contains 1/4 pound active ingredient per gallon.  
\*Cis isomers 97% minimum, trans isomers 3% maximum.  
EPA Reg. No. 53885-118 EPA Est. No. 53885-TX-002

KEEP OUT OF REACH OF CHILDREN  
CAUTION

### First Aid

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

**If 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.

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

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall® (866) 897-8030 for emergency medical treatment information.

**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.

### 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 spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. **STORAGE AND SPILL PROCEDURES:** Store upright at room temperatures. Avoid exposure to extreme temperatures. In case of spillage or leakages, soak up with an absorbent material such as sand, sawdust, earth, Fuller's earth, etc. Dispose of with chemical waste.

**PESTICIDE DISPOSAL:** Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.

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### NET CONTENTS: ONE QUART



Manufactured by  
**Control Solutions Inc.**  
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