

RUTGERS

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Bulletin**

2007 Control Recommendations for Household and Structural Insect Pests

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2007
PEST CONTROL
RECOMMENDATIONS FOR HOUSEHOLD AND
STRUCTURAL PESTS

TABLE OF CONTENTS

Ants	1
Bed Bugs	2
Book Lice	2
Boxelder Bugs	2
Brown Dog Ticks	3
Carpet Beetles	3
Carpenter Bees	3
Centipedes	3
Clothes Moths	3
Clover Mites	4
Cluster Flies	4
Cockroaches	4
Crickets	5
Earwigs	5
Fleas	6
Flies	6
Lice (Human)	7
Millipedes	7
Pantry Pests	7
Silverfish and Firebrats	8
Sowbugs	8
Spiders	8
Termites	9
Wasps	9

In some instances we have found it advisable to use trade names to avoid using long and complicated chemical names. No endorsement of named products is intended, nor is criticism implied of similar products that are not mentioned.

2007

HOUSEHOLD AND STRUCTURAL INSECT PESTS

NOTE: FOLLOW ALL DIRECTIONS AND RATES OF APPLICATION INDICATED ON THE PESTICIDE LABEL

PEST	PESTICIDE*	REMARKS
Ants	abamectin	Indoors: Spray or paint baseboards, windowsills, door frames, and cracks and crevices where ants travel. Follow good sanitary practices; prevent accumulation of crumbs and food particles on floor.
	acephate	
	allethrin	
	avermectin	Outdoors: Treat around the base of outside foundation, cellar windows, window and door frames, and sills.
	azadiractin	
	bifenthrin	
	borax	Baits: Place baits by ant trails or close to where ants are present. DO NOT place in areas where food is being handled or prepared.
	boric acid	
	cyfluthrin	
	λ -cyhalothrin	
	cypermethrin	
	deltamethrin	
	diatomaceous earth	
	esfenvalerate	
	eugenol	
	fenvalerate	
	fipronil	
	fluvalinate	
	hydramethylnon	
	imidacloprid	
	imoprothrin	
	indoxacarb	
	methoprene	
	mint oil	
	permethrin	
	prallethrin	
	propoxur	
pyrethrins		
resmethrin		
silicon dioxide		
sulfuramid		
sumithrin		
tetramethrin		
tralomethrin		

PEST	PESTICIDE*	REMARKS
Bed Bugs	cyfluthrin deltamethrin diatomaceous earth eugenol imoprothrin methoprene permethrin pyrethrins resmethrin silicon dioxide sulfuryl fluoride tralomethrin tetramethrin	Spray springs, frames, and bed slats. NEVER SPRAY BEDDING. Allow all treated surfaces to dry at least 4 hours before use. Paint or spray baseboards and wall cracks.
Book Lice	acephate allethrin bifenthrin cyfluthrin cyhalothrin cypermethrin diatomaceous earth eugenol imoprothrin mint oil permethrin pyrethrins tetramethrin tralomethrin	Reduce humidity and eliminate moisture problems as best as possible.
Boxelder Bugs	acephate azadirachtin bifenthrin cyfluthrin λ -cyhalothrin cypermethrin imidacloprid permethrin prallethrin pyrethrins tralomethrin tetramethrin	Indoors: Pick-up bugs by hand or vacuum cleaner. Caulk cracks and openings around windows, doors, and other points of entry.

PEST	PESTICIDE*	REMARKS
Brown Dog Ticks	allethrin bifenthrin cyfluthrin λ -cyhalothrin cypermethrin deltamethrin diatomaceous earth eugenol imoprothrin esfenvalerate permetthrin prallethrin pyrethrins pyriproxyfen silicon dioxide sumithrin tralomethrin	Services of a pest control operator are generally required. Spray or paint baseboards, door and window casings, edges of carpets, and other possible hiding places. Use carbaryl or rotenone on cats and dogs. Pet sleeping quarters should be vacuumed, treated, and bedding replaced with untreated material.
Carpet Beetles	allethrin bifenthrin cyfluthrin λ -cyhalothrin deltamethrin diatomaceous earth eugenol imoprothrin permethrin prallethrin pyrethrins resmethrin tralomethrin	Dry cleaning kills carpet beetles but will not prevent reinfestation. Prevent lint accumulation under beds, chairs, furniture, and baseboards. Spot treat rugs, carpets, and baseboards. Use one pound of paradichlorobenzene balls, flakes, or crystals per 100 cu. ft. in air-tight closets or chests. Resmethrin may be applied to some fabrics.
Carpenter Bees	bifenthrin carbaryl cyfluthrin diatomaceous earth esfenvalerate permethrin tetramethrin tralomethrin	Outdoors only.
Centipedes	cyfluthrin diatomaceous earth esfenvalerate permethrin tetramethrin tralomethrin	
Clothes Moths	dichlorvos (storage only) cyfluthrin deltamethrin paradichlorobenzene (storage only) prallethrin resmethrin sumithrin tralomethrin	See "Carpet Beetles." Locate and eliminate source(s) of infestation. Inspect closets, basement, attic, and carpets under furniture. Fur, wool, and feathers are common sources of infestation.

PEST	PESTICIDE*	REMARKS
Clover Mites	allethrin	<p>Indoors: Use pyrethrins directly on mites.</p> <p>Outdoors: Apply to base of outside foundation and up to first floor windowsills. Treat outward from base of foundation to 10 or 15 feet.</p>
	bifenthrin	
	cyfluthrin	
	cypermethrin	
	diatomaceous earth	
	eugenol	
	imoprothrin	
	permethrin	
	prallethrin	
	pyrethrins	
tralomethrin		
Cluster Fly	acephate	<p>Indoors: Use aerosol sprays of pyrethrins plus piperonyl butoxide. Seal points of entry around doors and windows on sunny exposures with caulking compound, weather stripping, or other suitable material. Screen louvers and other ventilating openings.</p> <p>Outdoors: Apply insecticides under eaves and other surfaces where flies rest or congregate.</p>
	cyfluthrin	
	λ -cyhalothrin	
	cypermethrin	
	deltamethrin	
	permethrin	
	pyrethrins	
resmethrin		
Cockroaches	abamectin	<p>Services of a Pest Control Operator are usually required. Include feeding stations such as MAXFORCE or COMBAT as well as IGR (TORUS 2E or GENCOR) in control programs. Bendiocarb and propoxur tolerant German cockroach populations have been encountered in New Jersey.</p>
	acephate	
	allethrin	
	avermectin	
	bifenthrin	
	boric acid	
	chlorfenapyr	
	cyfluthrin	
	λ -cyhalothrin	
	cypermethrin	
	deltamethrin	
	diatomaceous earth	
	esfenvalerate (outdoors only)	
	eugenol	
	fipronil	
	hexa-hydroxyl	
	hydramethylon	
	hydroprene	
	imidacloprid	
	imoprothrin	
	indoxacarb	
	mint oil	
	permethrin	
	prallethrin	
	pyrethrins	
	pyriproxyfen	
	resmethrin	
silicon dioxide		
sulfuramyl flourimid		
tetramethrin		
tralomethrin		

PEST	PESTICIDE*	REMARKS
Crickets	acephate bifenthrin boric acid cyfluthrin λ -cyhalothrin cypermethrin deltamethrin diatomaceous earth esfenvalerate eugenol hexa-hydroxyl imoprothrin permethrin prallethrin pyrethrins pyriproxyfen resmethrin sumithrin tetramethrin tralomethrin	<p>Indoors: Treat basement areas where walls meet floors, under stairways, and baseboards in closets. Seal points of entry around doors and windows and other sites with caulking compound, weather striping, or other suitable materials.</p> <p>Outdoors: Spray foundation, around cellar windows, around door sills, and under open porches.</p>
Earwigs	acephate allethrin bifenthrin boric acid cyfluthrin λ -cyhalothrin cypermethrin diatomaceous earth esfenvalerate (outdoors only) eugenol imoprothrin mint oil permethrin prallethrin pyrethrins resmethrin silicon dioxide tetramethrin tralomethrin	<p>Indoors: Use a flyswatter, folded newspaper, or quick application of a foot to kill earwigs that wander indoors. If troublesome, use spot treatments of insecticides.</p> <p>Outdoors: Treat base of foundation and outwards to distance of 10 to 15 feet. Treat around outside door frames and sills.</p>

PEST	PESTICIDE*	REMARKS
Fleas	acephate allethrin bifenthrin boric acid cyfluthrin λ -cyhalothrin cypermethrin deltamethrin diatomaceous earth (outdoors only) esfenvalerate eugenol fipronil imidacloprid lufenuron methoprene permethrin pyrethrins pyriproxyfen resmethrin silicon dioxide tetramethrin tralomethrin	<p>Indoors: Spray floors and baseboards and walls to height of one foot in rooms and cellars where fleas are a problem. Dust animals' sleeping quarters. Replace bedding.</p> <p>Outdoors: Spray infested lawns, dog kennel areas, and under open porches.</p> <p>Animals: 9.7% fipronil, 9.1% imidacloprid, or 0.25 to 0.5% permethrin or may be applied. Follow precaution on label. The services of a veterinarian may be necessary.</p>
Flies	allethrin azadirachtin bifenthrin (Outdoors only) cyfluthrin (Outdoors only) λ -cyhalothrin cypermethrin deltamethrin dichlorvis (Indoors only) imidacloprid (Outdoors only) mint oil permethrin prallethrin (Outdoors only) pyrethrins pyriproxyfen silicon dioxide tetramethrin (Outdoors only) tralomethrin	<p>If only a few flies are present use a flyswatter and/or sticky ribbons. Windows, doors, louvers, and air vents should be screened. If possible, do not keep garbage cans or piles of debris near doorways or windows.</p>

PEST	PESTICIDE*	REMARKS
Lice (Human)	malathion (Ovid) permethrin (Nix) pyrethrins (Rid)	Body, head and crab lice on the body only. Shampoo formulations. Thoroughly treat infested areas of body with lotion. Ovide requires a doctor's prescription. Wash infested clothing with hot water and strong soap. Dry clean woollens. Treatment of rugs, furniture and other areas of the home with insecticides is not needed.
Millipedes	acephate allethrin (Indoors only) azadirachtin bifenthrin boric acid cyfluthrin λ -cyhalothrin cypermethrin (Indoors only) deltamethrin diatomaceous earth eugenol (Indoors only) hexa-hydroxyl imoprothrin (Indoors only) mint oil permethrin prallethrin (Indoors only) pyrethrins (Indoors only) resmethrin silicon dioxide tetramethrin (Outdoors only) tralomethrin	Indoors: Pick up millipedes with a vacuum cleaner or a broom and dust pan. Outdoors: Apply insecticide to base of outside foundation and outwards to a distance of 10 feet. Treat all possible entry points.
Pantry Pests	acephate cyfluthrin cypermethrin deltamethrin diatomaceous earth eugenol hexa-hydroxyl imoprothrin mint oil permethrin prallethrin pyrethrins pyriproxyfen resmethrin sumithrin tralomethrin	Destroy infested products or heat in oven at 140°F for one-half hour or place in a home freezer held at 0°F or below for 3 or 4 days. When applying insecticides, do not contaminate food, dishes, or utensils. Empty shelf areas and clean cracks and crevices with a vacuum cleaner; wash shelves with soap and water and lightly spray shelves. Be certain to treat cracks and crevices. Wipe away all excess spray residue. After spray dries, cover shelves with foil or clean paper before placing food packages in the cupboard. Isolate packages in canisters with tight lids or place packages in plastic freezer bags until insects are no longer a problem.

PEST	PESTICIDE*	REMARKS
Silverfish and Firebrats	acephate	Indoors: Spray or dust in attics, wall voids, baseboards, door and window casings, where pipes go through walls, and into cracks and crevices that may harbor silverfish. Keep books and other paper products in a dry area.
	allethrin	
	bifenthrin	
	boric acid	
	cyfluthrin	
	λ -cyhalothrin	
	cypermethrin	
	deltamethrin	
	diatomaceous earth	
	eugenol	
	hexa-hydroxyl	
	hydramethylnon	
	imoprothrin	
	mint oil	
	permethrin	
pyrethrins		
silicon dioxide (silverfish only)		
tetramethrin		
tralomethrin		
Sowbugs	abamectin	Treat outdoors along foundation, around cellar windows, in crawl spaces, cellar doorways, and other possible points of entry.
	acephate	
	allethrin	
	bifenthrin	
	boric acid	
	cyfluthrin	
	λ -cyhalothrin	
	cypermethrin	
	deltamethrin	
	diatomaceous earth	
	esfenvalerate (Outdoors only)	
	eugenol	
	mint oil	
	permethrin	
	prallethrin	
pyrethrins		
silicon dioxide		
tetramethrin (Outdoors only)		
tralomethrin		
Spiders	acephate	Indoors: Keep spiders out of dwellings by adequate screening of windows and doors and caulking possible points of entry. If only a few spiders are present, use a flyswatter. Outdoors: Treat base of foundation, door, and windowsills.
	allethrin (Indoors only)	
	bifenthrin	
	cyfluthrin	
	λ -cyhalothrin	
	cypermethrin (Indoors only)	
	deltamethrin	
	diatomaceous earth	
	esfenvalerate (Outdoors only)	
	eugenol (Indoors only)	
	hexa-hydroxyl	
	mint oil (Indoors only)	
	permethrin	
	prallethrin (Indoors only)	
	pyrethrins (Indoors only)	
resmethrin		
sumithrin		
tetramethrin		
tralomethrin		

PEST	PESTICIDE*	REMARKS
Termites	Soil Termiticides: bifenthrin chlorfenapyr cypermethrin fenvalerate fipronil imidacloprid permethrin Structure Treatments: boric acid bifenthrin chlorfenapyr cyfluthrin cypermethrin deltamethrin esfenvalerate fipronil imidacloprid permethrin sulfluramid Baits: diflubenzuron novifluron	The services of a pest control operator are necessary to obtain control.
Wasps	acephate allethrin bifenthrin carbaryl cyfluthrin λ -cyhalothrin cypermethrin deltamethrin diatomaceous earth esfenvalerate eugenol hexa-hydroxyl mint oil permethrin phenothrin pyrethrins resmethrin tetramethrin tralomethrin	Apply insecticides directly to nests during the evening or early morning. Cover light with red cloth. For ground nesting situations, apply insecticide into nest opening and cover hole with a shovel full of moist soil.

* The materials listed here may only be available for use by conunercial applicators licensed by the New Jersey Department of Envorinmental Protection Pesticide Control Program. Consult the pesticide label for more detail.

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