



010182-00361-052199

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Systems Integration Group, Inc.

MAY 21 1999

Mr. S. K. Theodorakis  
Regulatory Product Lead  
Zeneca Ag Products  
1800 Concord Pike  
P.O. Box 15458  
Wilmington, DE 19850-5458

Subject: Amendment: Update Label /Fire Ant Data  
Demand CS Insecticide  
EPA Registration No. 10182-361  
Final Label Dated February 18, 1999

Dear: Mr. Theodorakis:

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit/cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) or 4(a) when the Agency requires all registrants of similar products to submit such data.
2. On page 8 of your label under "CLUSTER FLIES" revise the sentence beginning "Apply to runoff on siding...south-facing surfaces." to read "Apply thoroughly on siding, under eaves, and around windows and doors, paying particular attention to south-facing surfaces, but do not allow runoff to occur."
3. Under "GENERAL INFORMATION", add a statement describing typical non-food/non-feed areas such as: "Nonfood/nonfeed areas of food/feed handling establishments include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage (after canning or bottling)."
4. Submit two (2) copies of your final printed labeling before you release the product for shipment.

CONCURRENCES

SYMBOL	75052						
SURNAME	Sprout						
DATE	5/21/99						

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A stamped copy of the label is enclosed for your records. If you have any questions, please call Dr. William Sproat of my team at 703-308-8587.

Sincerely,

George T. LaRocca  
Product Manager 13  
Insecticide Branch  
Registration Division (7505C)

Enclosure

DEMAND® CS Insecticide

For Commercial and Agricultural Use Only

For Use by Individuals/Firms Licensed or Registered by the State to Apply Pesticide Products. States May Have More Restrictive Requirements Regarding Qualifications of Persons Using This Product. Consult the Pest Control Regulatory Agency of Your State Prior to Use of This Product.

ACTIVE INGREDIENT:

Lambda-cyhalothrin <sup>1</sup>	
[1α(S*),3α(Z)]-(±)-cyano-(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate	9.7%
INERT INGREDIENTS:	90.3%
Total	100.0%

<sup>1</sup>Synthetic pyrethroid

EPA Reg. No. 10182-361  
EPA Est. No.

Net Contents:

KEEP OUT OF REACH OF CHILDREN

CAUTION

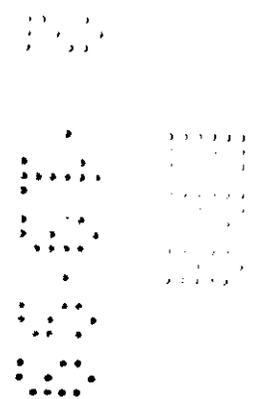
See Side Panel for Statement of Practical Treatment and Precautionary Statements

ACCEPTED  
with COMMENTS  
in EPA Letter dated

MAY 21 1999

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 10182-361

Made in U.S.A.  
ZENECA Professional Products  
ZENECA Inc.  
Wilmington, DE 19850-5458



**CONDITIONS OF SALE  
AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ZENECA or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ZENECA and Seller harmless for any claims relating to such factors.

ZENECA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ZENECA, and Buyer and User assume the risk of any such use. ZENECA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall ZENECA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ZENECA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ZENECA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

ZENECA and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of ZENECA.

**STATEMENT OF PRACTICAL TREATMENT**

**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention if irritation persists.

**IF SWALLOWED:** If victim is alert and not convulsing, rinse mouth out and give 200-300 mL (1 cup) of water to dilute material. **IMMEDIATELY** contact your local Poison Control Center. Vomiting should only be induced under the direction of a physician or a Poison Control Center. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. **IMMEDIATELY** transport victim to an emergency facility.

**IF IN EYES:** Flush with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

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**FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL 1-800-F-A-S-T-M-E-D (327-8633).**

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300.**

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

HARMFUL IF ABSORBED THROUGH SKIN. PROLONGED OR FREQUENTLY REPEATED SKIN CONTACT MAY CAUSE ALLERGIC SKIN REACTIONS IN SOME INDIVIDUALS. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist or vapors. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**ENVIRONMENTAL HAZARDS**

This product is extremely toxic to fish. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply directly to any body of water. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Apply this product only as specified on this label. Care should be used. When making applications, care should be used to avoid household pets, particularly fish and reptile pets.

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 or weeds if bees are visiting the treatment area.

**PHYSICAL AND CHEMICAL HAZARDS**

Do not use this product in or on electrical equipment due to the possibility of shock hazard.

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### DIRECTIONS FOR USE

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

**IMPORTANT:** 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 for aesthetic purposes or climatic modification and being grown in interior plantscapes, ornamental gardens or parks, or on lawns or grounds.

This product is restricted for use in the state of New York. Only for sale to, use, and storage by Certified Applicators.

### STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

**STORAGE:** Keep container closed when not in use. Do not store near food or feed. Shake well before use. Protect from freezing. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste storage area until proper disposal can be made.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Completely empty container into application equipment, then offer for recycling or reconditioning, or puncture and dispose of empty container in a sanitary landfill, by incineration, or by other procedures approved by state and local authorities.

### GENERAL INFORMATION: STRUCTURAL AND PERIMETER PEST CONTROL

FOR USE AS A GENERAL SURFACE (NONFOOD/NONFEED AREAS), CRACK AND CREVICE OR SPOT TREATMENT IN, ON, AND AROUND BUILDINGS AND STRUCTURES AND THEIR IMMEDIATE SURROUNDINGS AND ON MODES OF TRANSPORT. PERMITTED AREAS OF USE INCLUDE, BUT ARE NOT LIMITED TO, INDUSTRIAL BUILDINGS, HOUSES, APARTMENT BUILDINGS, LABORATORIES, BUSES, GREENHOUSES (NON-COMMERCIAL), STORES, WAREHOUSES, VESSELS, RAILCARS, TRUCKS, TRAILERS, AIRCRAFT (CARGO AND OTHER NON-CABIN AREAS ONLY), SCHOOLS, NURSING HOMES, HOSPITALS, RESTAURANTS, HOTELS, LIVESTOCK/POULTRY HOUSING, PET KENNELS, FOOD GRANARIES, FOOD GRAIN MILLS, AND FOOD MANUFACTURING, PROCESSING AND SERVICING ESTABLISHMENTS.

For indoor applications, DEMAND CS can be reapplied at 21-day intervals if necessary. More frequent treatments are limited to spot treatments.

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### Mixing Instructions

DEMAND® CS insecticide is intended for dilution with water for application using hand held or power operated application equipment as a coarse spray for crack and crevice or spot and general surface (non-food/non-feed areas only) treatments. Application equipment that delivers low volume treatments, such as the Micro-Injector® or Actisol® applicator, may also be used to make crack and crevice or spot and general surface treatments. Fill applicator tank with the desired volume of water and add DEMAND CS insecticide. Close and shake before use in order to ensure proper mixing. Shake or reagitrate applicator tank before use if application is interrupted. ~~Make up~~ Mix only amount of treatment volume as required. A general surface treatment of DEMAND CS may be applied by using a paintbrush or other porous applicator attached to a handle.

### Tank Mixing

DEMAND CS insecticide may be tank mixed with other currently registered pesticides unless expressly prohibited by the product label. A small volume mixing test with the other products is recommended to ensure compatibility. If other chemicals are added to the applicator tank, DEMAND CS should be added last. If mixed with EC formulations or oils, use within 24 hours. Fill tank to desired volume and continue to agitate while making applications.

DEMAND CS may be tankmixed with an Insect Growth Regulator (IGR) such as ARCHER® Insect Growth Regulator.

Observe all restrictions and precautions which appear on the labels of these products.

### Foam Applications

DEMAND CS may be converted to a foam and the foam used to treat structural voids to control or prevent pests including ants, bees, termites (above ground only), wasps, or other arthropods harboring in walls, under slabs, or in other void areas.

~~Test to be sure that foaming product is compatible with DEMAND CS Insecticide. Use recommended rate emulsion converted to a foam with expansion characteristics of 2 to 20 times.~~

PESTS	CONCENTRATION OF ACTIVE INGREDIENT	DILUTION RATE
Ants Bedbugs (Adult) Bees Boxelder Bugs Carpenter Bees Carpet Beetles Centipedes Cigarette Beetles Clover Mites Cockroaches <sup>1</sup> Confused Flour Beetles Crickets Earwigs Firebrats Fleas <sup>2</sup> Flies Lesser Grain Borers Millipedes Mosquitoes Red Flour Beetles Rice Weevil Saw-toothed Grain Beetles Silverfish Sowbug Spiders Termites (above ground only) Ticks Wasps	0.015 - 0.03%	0.015%: 0.2 fl oz (6 mL)/gal. water  0.03%: 0.4 fl oz (12 mL)/gal. water
Cockroaches <sup>1</sup> Crickets <sup>6</sup> Flies <sup>5</sup> Litter Beetles <sup>3</sup> (adults/immature stages such as Darkling, Hide and Carrion) Mosquitoes <sup>4</sup> Pillbugs Scorpions Spiders <sup>6</sup> Spider Mites (Two spotted, Spruce) Ticks <sup>6</sup>	0.06%	0.8 fl oz (24 mL)/gal. water

<sup>1</sup> For cockroaches the recommended rate for maintenance treatments is 0.015% and for clean-out treatments is 0.03%. In addition, more frequent applications may be needed necessary on concrete surfaces. For control of SEVERE infestations, use 0.06% rate.

<sup>2</sup> For outdoor use only and use 0.03% rate.

<sup>3</sup> For control of LIGHT beetle infestations, use 0.03% rate.

<sup>4</sup> For residual control, use 0.06% rate.

<sup>5</sup> Rates for flies may be increased to 0.06% when environmental conditions are severe and/or populations are high.

<sup>6</sup> For clean-out/severe infestations, use 0.06% rate.

**SPECIFIC USE DIRECTIONS**

**ANTS:** Apply to any trails around doors and windows and other places where ants may be found. For best results, locate and treat nests. Apply barrier treatments to prevent infestation as directed below; also see **OUTDOOR SURFACES USE**. Where ants are trailing inside, apply as a residual surface treatment to active areas such as baseboards, corners, around pipes, in and behind cabinets, behind and under refrigerators, sinks, furnaces and stoves, cracks and crevices. When combining baits and residual surface insecticides, apply surface insecticides in cracks and crevices, along baseboards, and infested surfaces and outside barrier treatments. Use baits in other areas that are untreated by residual insecticides; also see **OUTDOOR SURFACES USE**.

**COCKROACHES, CRICKETS, EARWIGS, FIREBRATS, SILVERFISH, AND SPIDERS:** Apply as a coarse, low pressure spray to areas where these pests hide, such as baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, cabinets, behind and under refrigerators, sinks, furnaces, and stoves, the underside of shelves, drawers and similar areas. Pay particular attention to cracks and crevices; also see **OUTDOOR SURFACES USE**.

**BEEES, CARPENTER-BEES, FLIES, MOSQUITOES, AND WASPS:** Apply directly to walls, ceilings, window screens, and other resting areas as a residual surface treatment. May be used inside residential buildings as well as in and around carports, garages, and storage sheds; also see **OUTDOOR SURFACES USE**.

**CARPENTER BEES:** Apply coarse spray to thoroughly wet wood surfaces where bees have been previously active or to provide protection against further damage. Apply early in the spring to prevent bees from invading wood. When bees have infested wood, surface applications can help control embedded larvae and bees that emerge from the wood. Periodic applications can be made to maintain protection of treated areas.

**PANTRY PESTS** (i.e., Carpet beetle, Cigarette beetle, Confused flour beetle, Lesser grain borer, Red flour beetle, Rice weevil, and Saw-toothed grain beetle): Apply to cupboards, shelving, and storage areas. Remove all utensils, uncovered foodstuffs (or any having original package opened), and shelf paper before making application. Allow treated surfaces to dry and cover shelves with clean paper before replacing any utensils, foodstuff, or other items. Any foodstuff accidentally contaminated with treatment solution should be destroyed.

**BOXELDER BUGS, CENTIPEDES, MILLIPEDES, PILLBUGS, AND SOWBUGS,:** Apply around doors and windows and other places where these pests may be found or where they may enter premises. Treat baseboards, storage areas, and other locations. Apply barrier treatments to prevent infestation as described below; also see **OUTDOOR SURFACES USE**.

**FLEAS AND TICKS:** To control nuisance fleas and ticks (e.g. dog ticks) apply to kennels, yards, runs and other areas where pets may frequent. For best coverage to control ticks, apply using a coarse fan spray to vegetation brush, branches, rock walls, and other areas near habitation where ticks may harbor or frequent. Treat entire area rather than making spot treatments, and retreat as necessary to maintain control. Do not apply to pasture or cropland and do not allow animals and people access to treated areas until the deposit has dried. Applications can begin in the spring and can continue until frost to control both larvae and adult ticks; also see **OUTDOOR SURFACES USE**.

**CLUSTER FLIES:** Apply in late summer or early fall before flies are observed alighting on surfaces. Apply to runoff on siding, under eaves, and around windows and doors, paying particular attention to south-facing surfaces. Heavy precipitation prior to frost may require retreatments to maintain protection. In winter and spring when flies become active and are emerging, interior crack and crevice and void treatments can help reduce the infestation, along with ULV or general surface application in infested attics or unoccupied lofts.

**LITTER BEETLES (DARKLING, HIDE AND CARRION BEETLES) AND FLIES IN ANIMAL HOUSING (SUCH AS POULTRY HOUSES):** To control adult litter beetles, apply DEMAND CS to walls and floors at cleanout, before reintroduction of animals. This will suppress beetles that escaped earlier treatment and will help delay onset of future infestations. Pay attention to areas where beetles frequently occur, such as walls, supports, cages, stalls and around feeders. To help control flies, apply a directed application to horizontal surfaces and overhead areas and allow to dry before reintroduction of animals; also see LIVESTOCK/POULTRY HOUSING STRUCTURES AND PET KENNELS.

**Application Within Food Handling Establishments:** (places other than private residences in which exposed food is held, processed, prepared, or served) including, but not limited to, areas for receiving, storage, packing (canning, bottling, wrapping, boxing), preparing foods, edible waste storage and enclosed processing systems (mills, dairies, edible oils, syrups) and serving areas. Use as a crack and crevice or spot treatment in and around both food and nonfood areas. Apply in small amounts directly into cracks and crevices, using equipment capable of delivering a pin stream of insecticide, in points between different elements of construction, between equipment and floor, openings leading to voids and hollow spaces in walls, equipment and bases. Food contact surfaces and equipment should be cleaned with an effective cleaning compound and rinsed with potable water before using.

Limit individual spot treatments to an area no larger than 20% of the treated surface. Individual spot treatments should not exceed two square feet. Take extreme care that the product is not introduced into the air. Avoid contamination of food and food processing surfaces.

Authorized by the USDA for use in edible areas of Federally inspected meat, poultry and egg processing facilities as a crack and crevice treatment.

**Application Within Food Serving Areas:** (facilities where foods are served, such as dining rooms): Apply as a crack and crevice or spot treatment to selective surfaces such as baseboards, under elements of construction, and into cracks and crevices. Avoid treating surfaces likely to be contacted by food. (Do not apply when facility is in operation or foods are exposed.) Food must be covered or removed in area being treated. Do not apply directly to food or allow applications to contaminate food.

Application of this product in the Food Areas and/or Food Serving Areas of Food Handling Establishments other than as a spot and/or crack and crevice treatment is not permitted. Use of application equipment such as the micro-injector or Actisol applicator in food areas should be limited to crack and crevice treatment only.

**LIVESTOCK/POULTRY HOUSING STRUCTURES AND PET KENNELS**

Apply as a general surface (including directed sprays) and/or crack and crevice treatment. Control is enhanced when interior and exterior perimeter applications are made in and around the livestock, poultry and pet housing structures. Normal cleaning practices of the structure also must be followed along with applications of DEMAND CS to effectively control the crawling and flying insect pests listed in the table.

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For unoccupied areas of livestock barns or housing structures, apply to floors, vertical and overhead surfaces where crawling or flying insect pests are or may be present. Feeders, waterers and feed carts should be covered before application to prevent contamination. Do not apply to milk rooms or feed rooms. Pay attention to animal areas including stantions, pipes, windows and doors, and areas where insect pests hide or congregate. Exterior applications to south facing walls and foundation perimeters can help prevent interior infestations of flying and crawling insect pests.

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 growout or sanitization procedure. 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 at least one foot 1-3 feet up and one foot 2-6 feet out from foundation. Maintaining a year-round treatment program will prevent background populations from reaching problem levels.

DO NOT make applications of DEMAND CS in areas where animals are present in the facility. Allow treated surfaces to completely dry before restocking the facility.

DO NOT make applications to any animal feedstuffs, water or watering equipment.

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

### OUTDOOR SURFACES USE

For control of ants, bees, centipedes, cockroaches, crickets, fleas, flies, millipedes, mosquitoes, scorpions, sowbugs, pillbugs, spiders, termites (above ground only), ticks, wasps and other similar perimeter insect arthropod pests. Apply with either hand or power application equipment as a residual treatment to ornamental plants next to foundations of buildings and to surfaces of buildings, porches, screens, window frames, eaves, patios, garages, refuse dumps and other similar areas where these insect pests are active. Also may be applied to lawn areas around residential/non-residential buildings, refuse dumps, and similar areas where these insect pests are active. For termites, this type of application is not intended as a substitute for soil treatment labeled termiticides or mechanical alteration to control subterranean termites, or fumigation for extensive infestation of drywood termites or other wood infesting insects.

**BARRIER TREATMENTS:** To help prevent infestation of building, apply to a band 6 to 10 feet wide around and adjacent to the building. Also, treat the building foundation to a height of 2 to 3 feet where pests are active and may find entrance. Apply as a coarse spray to thoroughly and uniformly wet the foundation and/or band area, using 1-5 gallons of treatment solution applied to 800-1600 square feet. Applying a continual band of insecticide around a building foundation and around windows, doors, service line entrances, eaves, vents and other areas can greatly reduce the potential for entry by crawling pests. To facilitate application, remove debris and leaf litter from next to the foundation, cut back vegetation and branches that touch the foundation, and move or rake back rocks, deep mulch, or other potential pest harborage next to the foundation. Apply the band up to 10 feet wide around the structure (or according to state regulations governing commercial pest control) and upwards along the foundation to 3 feet and around windows, doors, and roof overhangs. Apply as a coarse spray to thoroughly and uniformly wet the foundation and/or band area so that the insecticide will reach the soil or thatch level where pests may be active.

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Amount of concentrate is dependent upon pest species (see pest table and comments), infestation levels, and service interval desired.

**RATE TABLE FOR PERIMETER BARRIER APPLICATIONS**

Application Rate: Fluid Ounces (mL) of DEMAND CS	Gallons of Water <sup>1</sup>	Area of Coverage (sq ft)
0.2 fl oz (6mL)	1-5 gallons	800-1600 sq ft
0.4 fl oz (12 mL)	1-5 gallons	800-1600 sq ft
0.8 fl oz (24 mL)	1-5 gallons	800-1600 sq ft

<sup>1</sup>Application volume may be greater than 5 gallons per 800-1600 sq ft if required under heavy vegetative or landscaping materials in order to obtain desired coverage.

**EXAMPLES OF DILUTIONS FOR PERIMETER BARRIER APPLICATIONS**

Application Volume Gallons of Solution/ 1000 sq ft	Application Rate Fluid Ounces (mL) of DEMAND CS/1000 sq ft	Fluid Ounces (mL) of DEMAND CS to Dilute in Water According to Spray Tank Volumes		
		5 gals	10 gals	50 gals
1 gal/1000 sq ft	0.2 fl oz (6mL)	1 fl oz (30 mL)	2 fl oz (60 mL)	10 fl oz (600 mL)
	0.4 fl oz (12 mL)	2 fl oz (60 mL)	4 fl oz (120 mL)	20 fl oz (1200 mL)
	0.6 fl oz (24 mL)	4 fl oz (120 mL)	8 fl oz (240 mL)	40 fl oz (2400 mL)
2 gal/1000 sq ft	0.2 fl oz (6mL)	0.5 fl oz (15 mL)	1 fl oz (30 mL)	5 fl oz (150 mL)
	0.4 fl oz (12 mL)	1 fl oz (30 mL)	2 fl oz (60 mL)	10 fl oz (300 mL)
	0.6 fl oz (24 mL)	2 fl oz (60 mL)	4 fl oz (120 mL)	20 fl oz (600 mL)
5 gal/1000 sq ft	0.2 fl oz (6mL)	0.2 fl oz (6 mL)	0.4 fl oz (12 mL)	2 fl oz (60 mL)
	0.4 fl oz (12 mL)	0.4 fl oz (12 mL)	0.8 fl oz (24 mL)	4 fl oz (120 mL)
	0.6 fl oz (24 mL)	0.8 fl oz (24 mL)	1.6 fl oz (48 mL)	8 fl oz (240 mL)

**NOTE:** Do not use water base sprays of DEMAND CS in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard. For best results, thoroughly wash out sprayer and screen with water and detergent before using DEMAND CS insecticide. DEMAND CS has not stained or caused damage to painted or varnished surfaces, plastics, fabrics or other surfaces where water applied alone causes no damage.

- Let treated surfaces dry before allowing humans and pets to contact surfaces.
- ~~Do not use this product with oil.~~
- Do not apply this product in any room being used as living, eating, sleeping or recovery area by patients, the elderly, or infirm when they are in the room.
- Do not apply to classrooms when in use.
- Do not apply this product to edible growing crops or stored raw agricultural commodities used for food or feed.
- Do not allow applications to contact water inhabited by fish, such as in aquariums and ornamental fish ponds that are located in/around structures being treated.

**GENERAL INFORMATION: LAWNS/TURFGRASS AND ORNAMENTALS**

DEMAND CS may be used for applications to maintain indoor or outdoor areas where turf and ornamentals are grown such as residential landscaped areas and non-residential landscapes around institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields.

Applicators must ensure that they are certified in the necessary pesticide certification categories to allow application of DEMAND CS away from structures, such as to turf and ornamental plantings. Structural pest control certification categories may limit the distance away from structures for pesticide application. Consult your state extension office or pesticide regulatory officials for further information.

**General Mixing Instructions**

DEMAND CS is to be mixed with water and may be used in all types of standard application equipment. Fill applicator tank with the desired volume of water and add DEMAND CS insecticide. It is suggested that the water be 5 to 7 pH. Adjust water pH with a buffering agent if necessary. Slowly add DEMAND CS to applicator tank water with maximum agitation. Close and shake or reagitator applicator tank before use if application is interrupted. Make up only amount of treatment volume as required.

**Tank Mixing**

DEMAND CS insecticide may be tank mixed with other currently registered pesticides unless expressly prohibited by the product label. A small volume mixing test with the other products is recommended to ensure compatibility. If other chemicals are added to the applicator tank, DEMAND CS should be added last. Fill tank to desired volume and continue to agitate while making applications. If mixed with EC formulations, use within 24 hours.

Observe all restrictions and precautions which appear on the labels of these products.

**IMPORTANT:** Time application to flowering plants during periods when pollinating insects are not present, such as early morning or late evening.

- Do not apply this product through any type of irrigation system.
- Do not apply this product to edible crops.
- Do not apply this product by aerial application.
- Use of this pesticide adjacent to water may affect aquatic organisms. To protect these organisms, do not apply this pesticide within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.
- Do not make outdoor broadcast applications to turf and ornamentals when wind speed is 15 miles per hour or greater.
- In the state of New York, do not apply within 100 feet of coastal marshes or streams that drain into coastal marshes.

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USE	PEST	AMOUNT OF DEMAND CS
ORNAMENTALS IN RESIDENTIAL LANDSCAPED AREAS AND LANDSCAPED AREAS AROUND INSTITUTIONAL, PUBLIC, COMMERCIAL AND INDUSTRIAL BUILDINGS, PARKS, RECREATIONAL AREAS, AND ATHLETIC FIELDS (Including Trees, Shrubs, Flowers, Evergreens, Foliage Plants and Groundcovers)	Ants (Including Imported fire ants) Armyworms Azalea caterpillar Aphids Bagworms Black vine weevil (adult) Boxelder bugs Budworms California oakworm Cankerworms Cockroaches Crickets Cutworms Eastern Tent caterpillar Elm leaf beetles European sawfly Fall webworm Flea beetles Forest tent caterpillar Gypsy moth larvae Japanese beetles (adults) June beetles (adults) Lace bugs Leaf-feeding caterpillars Leafhoppers Leafminers (adults) Leaf rollers Leaf skeletonizers Midges Mosquitoes Oleander moth larvae Pillbug Pine sawfly Pine shoot beetles Pinetip moths Plant bugs Root weevil Sawfly Scale insects (crawlers) Spiders Spittlebugs Striped beetles Striped oakworm Thrips Tip moth Tussock moth larvae Wasps	1.5 to 5 fl oz/ 100 gals or 44 to 148 mL/ 100 gals
	Broadmite Brown softscale California redscale (crawler) Clover mites Mealybugs Pineneedlescale (crawler) Spider mites Whiteflies	3 to 5 fl oz/ 100 gals or 88 to 148 mL/ 100 gals

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Application to ornamentals should be started prior to the establishment of high insect pest populations. Make reapplications as necessary to keep pest populations under control, using higher rates as pest pressure increases.

Apply at 7-day intervals if retreatment is necessary. More frequent treatments should be limited to spot treatments.

Do not apply more than 0.36 pounds of the active ingredient (52.4 fl oz of concentrate) per acre per year.

Good spray coverage is necessary to provide the most effective level of control. Addition of a spreader-sticker at recommended rates may enhance the control of insects on certain species of ornamentals having waxy, hard to wet foliage.

For spot treatments use 0.5 fl. oz. DEMAND CS per 1 to 2 1/2 gallons of water.

Consult your state university or local Cooperative Extension Service office for specific pest control application timing in your area.

**NOTE:** While phytotoxicity testing has been carried out on a wide range of ornamental plants under various environmental conditions, and no phytotoxicity has been observed, certain cultivars may be sensitive to the final spray solution.

It is advised to prespray a selection of ornamental plants and observe them for 7 to 10 days prior to treating large areas if local use experience is unavailable.

**Scale.** Thoroughly cover the plant with DEMAND CS spray, including trunks, stems, twigs and foliage for control of scale insects.

**Bagworm.** Apply DEMAND CS when bagworm larvae begin to hatch. Spray directly on the larvae. Application is the most effective when the larvae are young.

DEMAND CS MIXING CHART FOR ORNAMENTAL INSECT PEST CONTROL  
(DEMAND CS to add per spray tank)

Rate of DEMAND CS	25 Gallons	50 Gallons	100 Gallons	200 Gallons	300 Gallons
1.5 oz	0.4 oz.	0.8 oz.	1.5 oz.	3.0 oz.	4.5 oz.
3 oz.	0.8 oz.	1.5 oz.	3.0 oz.	6.0 oz.	9.0 oz.
5 oz.	1.3 oz.	2.5 oz.	5.0 oz.	10.0 oz.	15.0 oz.

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USE	PEST	AMOUNT OF DEMAND CS
LAWNS/TURFGRASS AROUND RESIDENTIAL, INSTITUTIONAL, PUBLIC, COMMERCIAL AND INDUSTRIAL BUILDINGS, PARKS, RECREATIONAL AREAS AND ATHLETIC FIELDS	Ants (including imported fire ants) Armyworms Centipede Crickets Cutworms Earwigs Fleas (adult) Grasshopper Japanese beetle (Adult) Millipedes Mites Mosquitoes (Adult) Pillbugs Sod webworms Sow bugs Ticks (including species which transmit Lyme disease)	3.4 to 7 mL/1000 sq ft or 5 to 10 fl.oz/acre
	Bluegrass billbug (adult) Black turfgrass ataenius (adult) Chiggers Fleas (adult) Grubs (suppression) Hyperodes weevil (adult) Mole cricket (nymphs and young adults)	7 mL/1000 sq ft or 10 fl.oz/acre
	Mole Crickets (mature adults) Chinch Bugs	14 mL/1000 sq ft or 20 fl.oz/acre

Application to turf should be started prior to the establishment of high insect pest populations and significant turf damage. Make reapplications as necessary to keep pest populations under control, using higher rates as pest pressure increases.

Apply at 7-day intervals if retreatment is necessary. More frequent treatments should be limited to spot treatments.

Do not apply more than 0.36 pounds of active ingredient (52.4 fl. oz. of concentrate) per acre per year.

For spot treatments use 0.5 fl. oz. of DEMAND CS per 1 to 2½ gallons of water.

Do not apply when turfgrass is waterlogged or when soils are saturated with water (i.e. will not accept irrigation).

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

**Surface Insect Control (armyworm, cutworms, fleas, etc.)** For best results apply DEMAND CS at recommended rates in 2 to 5 gallons of water per 1,000 sq. ft. The use of a spreader-sticker may be useful if high rainfall amounts are forecast, otherwise the addition of adjuvants is not necessary under normal conditions for surface insect control in turf. Delay watering or mowing for 12 to 24 hours for optimum control of surface-feeding insect pests.

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**Thatch Inhabiting Insect Control (chinch bugs, billbugs, etc.)** For best results apply DEMAND CS at recommended rates in 2 to 10 gallons of water per 1,000 sq. ft. The use of a non-ionic wetting agent, penetrant or similar adjuvant is recommended at label rates. Lightly irrigate after application with up to 1/2 inch of water to move the DEMAND CS into the thatch layer. If irrigation is not available, then use high water application rates for optimum results.

**Subsurface Insect Control (mole crickets, grubs, etc.)** For best results apply DEMAND CS at recommended rates in 4 to 10 gallons of water per 1,000 sq. ft. The use of a non-ionic wetting agent, penetrant or similar adjuvant is strongly recommended following label rates. Use the highest water application rates possible with your sprayer. Apply DEMAND CS to turf wet with dew, rain or irrigation. Water-in immediately after application with 1/4 to 1/2 inch of water for optimum results.

**Fire Ant Control** Treat individual mounds with a drench application using a watering can. Use 0.5 fl. oz. of DEMAND CS per 2.5 gallons of water. Thoroughly soak each mound and a 3 foot diameter circle around each mound. Gently apply the mixture to avoid disturbing the mound. Disturbing the mound may cause the ants to migrate and reduce the effectiveness of the treatment. For best results, apply in early morning or late evening hours. Make additional treatments as needed.

**Mosquito Control** Apply as a general spray around landscape plantings, turf, and building foundations to control mosquitoes. For best results apply DEMAND CS at recommended rates in 2 to 5 gallons of water per 1,000 sq. ft.

DEMAND CS Mixing Chart for Turf Insect Pest Control  
(DEMAND CS to add per 100 gallon spray tank)

Rate of DEMAND	Application Rate Per 1,000 Square Feet of Turf				
	2 gal.	4 gal.	6 gal.	8 gal.	10 gal.
5 oz./acre	5.7 oz.	2.9 oz.	1.9 oz.	1.4 oz.	1.2 oz.
10 oz./acre	11.5 oz.	5.7 oz.	3.8 oz.	2.9 oz.	2.3 oz.
20 oz./acre	23.0 oz.	11.5 oz.	7.7 oz.	5.7 oz.	4.6 oz.

Conversion Rate: 1 fluid ounce (fl. oz.) equals 29 milliliters (mL).

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