



**SUPPLEMENTAL LABEL FOR GENERAL LABEL IMPROVEMENTS AND
ADDITION OF LANDSCAPED TURFGRASS AND ORNAMENTALS TO
DIRECTIONS FOR USE SECTION.**

DEMAND[®] CS Insecticide

EPA Reg. No. 10182-361

ZENECA Inc.

Professional Products
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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.

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.

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.

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.

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).

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

Mixing Instructions

DEMAND[®] CS 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 (nonfood/nonfeed 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. Close and shake before use in order to ensure proper mixing. Shake or reagitator applicator tank before use if application is interrupted. 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 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, use within 24 hours. Fill tank to desired volume and continue to agitate while making applications.

DEMAND CS may be tank mixed 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.

PESTS	CONCENTRATION OF ACTIVE INGREDIENT	DILUTION RATE
Bedbugs (adult) Cockroaches ¹ Crickets Earwigs Fleas ² Mosquitoes Spiders Termites (above ground only) Ticks	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 ¹ Crickets ⁶ Flies ⁵ Litter Beetles ³ (adults/immature stages such as Darkling, Hide and Carrion) Mosquitoes ⁴ Spiders ⁶ Ticks ⁶	0.06%	0.8 fl oz (24 mL)/gal water

* Not approved for use in California at the high rate.

¹ 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 necessary on concrete surfaces. For control of SEVERE infestations, use 0.06% rate.

² For outdoor use only and use 0.03% rate.

³ For control of LIGHT beetle infestations, use 0.03% rate.

⁴ For residual control, use 0.06% rate.

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

⁶ 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. 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**.

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.

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 thoroughly on siding, under eaves, and around windows and doors, paying particular attention to south-facing surfaces, but do not allow runoff to occur. 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**.

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.

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 stanchions, 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 1-3 feet up and 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 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. 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: 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.

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 Water¹	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

¹Application 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 (6 mL) 0.4 fl oz (12 mL) 0.8 fl oz (24 mL)	1 fl oz (30 mL) 2 fl oz (60 mL) 4 fl oz (120 mL)	2 fl oz (60 mL) 4 fl oz (120 mL) 8 fl oz (240 mL)	10 fl oz (300 mL) 20 fl oz (600 mL) 40 fl oz (1200 mL)
2 gal/1000 sq ft	0.2 fl oz (6 mL) 0.4 fl oz (12 mL) 0.8 fl oz (24 mL)	0.5 fl oz (15 mL) 1 fl oz (30 mL) 2 fl oz (60 mL)	1 fl oz (30 mL) 2 fl oz (60 mL) 4 fl oz (120 mL)	5 fl oz (150 mL) 10 fl oz (300 mL) 20 fl oz (600 mL)
5 gal/1000 sq ft	0.2 fl oz (6 mL) 0.4 fl oz (12 mL) 0.8 fl oz (24 mL)	0.2 fl oz (6 mL) 0.4 fl oz (12 mL) 0.8 fl oz (24 mL)	0.4 fl oz (12 mL) 0.8 fl oz (24 mL) 1.6 fl oz (48 mL)	2 fl oz (60 mL) 4 fl oz (120 mL) 8 fl oz (240 mL)

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. 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 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.

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

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 2 gallons of water.

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

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.

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 nonionic wetting agent, penetrant or similar adjuvant is recommended at label rates. Lightly irrigate after application with up to 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 nonionic 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 3 to 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 CS	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).

All applicable directions, restrictions and precautions on the EPA registered label are to be followed.

This labeling must be in the possession of the user at the time of pesticide application.

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Actisol® is a trademark of Roussel-Uclaf.

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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

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 22 gallons of water.