Specimen Label

Dow AgroSciences™

Conserve® SC

Turf and Ornamental

Insect Control

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For control of listed pests such as thrips, lepidopterous larvae, foliage feeding worms, fire ants and other listed pests infesting apple and other pome fruits, artichoke, asparagus, banana, *Brassica* (cole) leafy vegetables, bulb vegetables, bushberries, caneberries, citrus, commercial aquatic plants, cucurbits, dates, fruiting vegetables, grape, herbs, leafy vegetables, leaves of legume vegetables, leaves of root and tuber vegetables, okra, ornamentals (herbaceous and woody) growing outdoors, in nurseries or in greenhouses, peppermint, pistachio, plantain, pomegranate, popcorn, root and tuber vegetables, spearmint, spices, stone fruits, strawberry, sweet corn, tree nuts, tropical tree fruits, tree farms or plantations and turfgrass

Active Ingredient:	
spinosad (including Spinosyn A and Spinosyn D)	11.6%
Other Ingredients	88.4%
Total	100.0%

Contains 1 lb of active ingredient per gallon.

EPA Reg. No. 62719-291

Precautionary Statements

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

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

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Environmental Hazards

This product is toxic to bees exposed to treatment during the 3 hours following treatment. Do not apply this pesticide to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period. This product is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or when disposing of equipment washwaters. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Apply this product only as specified on the label.

Directions for Use

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

Read all Directions for Use carefully before applying.

Agricultural Use Requirements

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

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Non-Agricultural Use Requirements

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

- Adults, children, and pets should not contact treated surfaces until the spray has dried.

Storage and Disposal

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

Pesticide Storage: Store in original container only. Avoid freezing. In case of leak or spill, contain material with absorbent materials and dispose as waste.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Nonrefillable containers 5 gallons or less:

Container Handling: Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) 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 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. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Refillable containers 5 gallons or larger:

Container Handling: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Nonrefillable containers 5 gallons or larger:

Container Handling: Nonrefillable container. Do not reuse or refill this container.

Storage and Disposal (Cont.)

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

General Information

Use Conserve® SC Turf and Ornamental insect control, a fermentation-derived insect control agent, for control of listed pests such as thrips, lepidopterous larvae, foliage feeding worms, and fire ants and other listed pests.

General Use Precautions

- Do not treat pets.
- Do not graze livestock in treated areas.
- Do not feed treated grass cuttings (hay) or seed screenings to livestock or use hay for livestock bedding.
- Do not apply directly to fish pools and other bodies of water that may contain fish.
- **Chemigation:** Conserve SC may be applied through properly equipped sprinkler irrigation systems in the following crops: field grown gladiolus produced for cut flowers, field grown roses, field grown Dutch iris, and field grown delphinium. Do not apply this product by chemigation to any other crop except as specified on Dow AgroSciences supplemental labeling. Do not apply to the above listed crop(s) through any other type of irrigation system.
- Conserve SC may be aerially applied to commercially grown ornamentals only. Do not aerially apply this product to any other crop except as specified on Dow AgroSciences approved supplemental labeling.
- Do not apply to seedlings of edible crops for transplanting or to any other stage of edible crops growing in greenhouses.

Integrated Pest Management (IPM) Programs

Conserve SC is recommended for IPM programs in labeled crops. Other than reducing the target pest species as a food source, Conserve SC does not have a significant impact on certain parasitic insects or the natural predaceous arthropod complex in treated crops including ladybird beetles, lacewings, minute pirate bugs, and predatory mites. The feeding activities of these beneficials will aid in natural control of other insects and reduce the likelihood of secondary pest outbreaks. If Conserve SC is tank mixed with any insecticide that reduces its selectivity in preserving beneficial insects, the full benefit of Conserve SC in an IPM program may be reduced.

Insecticide Resistance Management (IRM)

Conserve SC contains spinosad, a Group 5 insecticide. Insect/mite biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect/mite population if Group 5 insecticides are used repeatedly in the same area, or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Conserve SC or other Group 5 insecticides. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. These two insecticide active ingredients share a common mode of action and must not be rotated with each other for control of pests listed on this label. Spinetoram and spinosad may be rotated with all other labeled insecticide active ingredients.

To delay development of insecticide resistance, the following practices are recommended:

- Carefully follow the specific label guidelines within the Use Direction sections of this label, especially in regard to IRM recommendations.
- Avoid use of the same active ingredient or mode of action (same insecticide group) on consecutive generations of insects. However, multiple applications to reduce a single generation are acceptable. Treat the next generation with a different active ingredient that has a different mode of action or use no treatment for the next generation.
- Avoid using less than labeled rates of any insecticide when applied alone or in tank mixtures.
- Applications should be targeted against early developmental stages of the pest whenever possible.
- Base insecticide use on comprehensive IPM programs.
- Contact your local extension specialist and/or manufacturer for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problem.
- For further information or to report suspected resistance, contact your local Dow AgroSciences representative by calling 800-253-3033.

Requirements for Use of Conserve SC in Greenhouses[1] and for Commercial Production of Herbaceous (Non-Woody) Ornamentals in Nurseries[1]

[1]A greenhouse is defined as a structure or space enclosed with a nonporous covering inside which plants are produced. A nursery is defined as a facility engaged in the outdoor production of plants.

- Regardless of the crop or pest being treated (excluding thrips, leafminers, spider mites and/or diamondback moths), do not apply Conserve SC more than 10 times in a 12-month period inside a greenhouse or a structure that can be altered to be closed or open. If Conserve SC is used for thrips, leafminer, spider mite and/or diamondback moth control, do not apply Conserve SC more than 6 times in a 12-month period inside a greenhouse or a structure that can be altered to be closed or open regardless if other insect pests are also being treated. It is a violation of federal law to use this product in a manner inconsistent with its labeling.
- For areas of commercial production of herbaceous (non-woody) ornamentals in nurseries (including plant propagation beds), do not apply Conserve SC more than 10 times in a 12-month period per crop regardless of the pest being treated (excluding thrips, leafminers, spider mites and/or diamondback moths). If Conserve SC is used in areas of commercial production of herbaceous (non-woody) ornamentals in nurseries (including plant propagation beds) for leafminer, spider mite and/or diamondback moth control, do not apply Conserve SC more than 6 times in a 12-month period per crop regardless if other insect pests are also being treated.
- Because generations of a specific pest may overlap, rotate insecticides and miticides and never apply more than 3 consecutive applications of Conserve SC or products containing the same active ingredient or with the same mode of action (same insecticide group). Use only specified label rates.
- Make localized area treatments of ornamental plants where pest problems are anticipated or occur rather than general area-wide broadcast treatments.
- Do not apply to seedlings of edible crops for transplanting or to any other stage of edible crops growing in greenhouses.

Mixing Directions

Shake Well Before Use – Avoid Freezing

Conserve SC - Alone: Fill the spray tank with water to about 1/2 of the required spray volume. Start agitation and add the required amount of Conserve SC. Continue agitation while mixing and filling the spray tank to the required spray volume. Maintain sufficient agitation during application to ensure uniformity of the spray mix. Do not allow water or spray mixture to back-siphon into the water source.

Conserve SC - Tank Mix: When tank mixing Conserve SC with other materials, conduct a compatibility test (jar test) using relative proportions of tank mix ingredients prior to mixing ingredients in the spray tank. Vigorous, continuous agitation during mixing, filling, and throughout application is required for all tank mixes. Sparger pipe or mechanical agitators generally provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid stirring or splashing air into the spray mixture.

Mixing Order for Tank Mixes: Fill the spray tank with water to 1/4 to 1/3 of the required spray volume. Start agitation. Add different formulation types in the order indicated below, allowing time for complete dispersion and mixing after addition of each product. Allow extra dispersion and mixing time for dry flowable products.

Add different formulation types in the following order:

1. Water dispersible granules and dry flowables
2. Wettable powders
3. Conserve SC and other suspension concentrates

Maintain agitation and fill spray tank to 3/4 of total spray volume. Then add:

4. Emulsifiable concentrates and water-based solutions
5. Spray adjuvants

Finish filling the spray tank. Maintain continuous agitation during mixing, final filling, and throughout application. If spraying and agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger pipe agitator is particularly useful for this purpose.

Premixing: Dry and flowable formulations may be premixed with water (slurried) and added to the spray tank through a 20 to 35 mesh screen. This procedure assures good initial dispersion of these formulation types.

Spray Tank pH: A spray tank pH between 6.0 and 9.0 is suggested to achieve maximum performance of Conserve SC. If the water source is outside of this pH range, or tank mixing other pesticides, adjuvants, or foliar nutrients cause the pH to fall outside this range, consider adjusting the spray tank pH to be between 6.0 and 9.0 before adding Conserve SC. To do this, add all other tank mix components first, then check the spray tank pH, adjust if desired, and then add Conserve SC. If you require additional information on how to adjust spray tank pH, contact your Dow AgroSciences representative.

Application Directions

Aerial Application

Conserve SC may be aerially applied to commercially grown ornamentals only. Aerial or ground applications in production agriculture or directed ground applications to individual plants are permitted. Do not make aerial applications in immediate proximity of residential, commercial, government, institutional or other structures where people may be present including homes, apartments, offices, churches, schools, and businesses. Aerial applicators should evaluate conditions existing at the time of application and make appropriate adjustments to reduce drift. In urban areas, however, use is limited to directed ground applications. Do not aerially apply this product to any other crop except as specified on Dow AgroSciences approved supplemental labeling.

Apply in spray volume of 5 gallons or more per acre (10 gallons or more per acre for trees, vines or orchard crops). Nozzle configuration should provide a medium to fine dropsize per ASABE S-572 standard (see USDA-ARS or NAAA handbook). Guidance for ASABE S-572 nozzle configuration can be found at the following web site: www.cpproductsinc.com. Boom length must be less than 75% of wing or 85% of rotor span and swath adjustment (offset) to compensate for crosswinds. Observe minimum safe application height (maximum 12 feet for ag canopies). Use GPS equipment, swath markers or flagging to ensure proper application to the target area. Configure the boom nozzle used (e.g., at NAAA Fly-In) for both crosswind and near parallel winds. If application is made parallel to the wind direction, adjust swath width downward. Use swath adjustment (offset) to compensate for crosswinds. Do not apply under completely calm wind conditions. It is best to apply when wind speed is between 2 to 10 mph. Under conditions of low humidity and high temperatures, adjust spray volume and droplet size upward to compensate for evaporation of spray droplets. Insect control by aerial application may be less than control by ground application because of reduced coverage.

Chemigation Application

Conserve SC may be applied through properly equipped sprinkler irrigation systems in the following crops: field grown gladiolus produced for cut flowers, field grown roses, field grown Dutch iris, and field grown delphinium. Do not apply this product by chemigation to other labeled crops except as specified in Dow AgroSciences supplemental labeling. Do not apply to the above listed crop(s) through any other type of irrigation system.

Directions for Sprinkler Chemigation: Apply Conserve SC only through overhead sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, micro sprinkler, or hand move. Do not apply this product through any other type of irrigation system. Sprinkler systems that deliver a low coefficient of uniformity such as certain water drive units are not recommended.

For continuously moving systems, the mixture containing Conserve SC must be injected continuously and uniformly into the irrigation water line as the sprinkler is moving. If continuously moving irrigation equipment is used, apply in no more than 0.25 inch of water. For irrigation systems that do not move during operation, apply in no more than 0.25 inch of irrigation immediately before the end of the irrigation cycle.

Chemigation Equipment Preparation: Follow these use directions when this product is applied through sprinkler irrigation systems. Thoroughly clean the chemigation system and tank of any fertilizer or chemical residues, and dispose of the residues according to state and federal laws. Flush the injection system with soap or a cleaning agent and water. Determine the amount of Conserve SC needed to cover the desired acreage. Mix according to instructions in the Mixing Directions section above. Continually agitate the mixture during mixing and application.

Chemigation Equipment Calibration: In order to calibrate the irrigation system and injector to apply the mixture containing Conserve SC, determine the following: 1) Calculate the number of acres irrigated by the system; 2) Calculate the amount of product required and premix; 3) Determine the irrigation rate and determine the number of minutes for the system to cover the intended treatment area; 4) Calculate the total gallons of insecticide mixture needed to cover the desired acreage. Divide the total gallons of insecticide mixture needed by the number of minutes (minus time to flush out) to cover the treatment area. This value equals the gallons per minute output that the injector or eductor must deliver. Convert the gallons per minute to milliliters or ounces per minute, if needed. Calibrate the injector system with the system in operation at the desired irrigation rate. It is suggested that the injection pump/system be calibrated at least twice before operation, and the system should be monitored during operation.

Chemigation Equipment Requirements:

- The system must contain an air gap, or approved backflow prevention device, a functional check valve, vacuum relief valve (including inspection port), and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. Refer to the American Society of Agricultural Engineer's Engineering Practice 409 for more information or state specific regulations.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- To insure uniform mixing of the insecticide in the water line, inject the mixture in the center of the pipe diameter or just ahead of an elbow or tee in the irrigation line so that the turbulence created at those points will assist in mixing. The injection point must be located after all back flow prevention devices on the water line.
- The tank holding the insecticide mixture should be free of rust, fertilizer, sediment, and foreign material and equipped with an in-line strainer situated between the tank and the injection point.

Chemigation Operation: Start the water pump and irrigation system and let the system achieve the desired pressure and speed before starting the injector. Check for leaks and uniformity and make repairs before any chemigation takes place. Start the injection system and calibrate according to manufacturer's specifications. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

Chemigation Precautions:

- Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- If you have questions about calibration, contact state extension service specialists, equipment manufacturers or other experts.
- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall operate the system and make necessary adjustments should the need arise and continuously monitor the injection.

Chemigation Restrictions:

- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system shoud be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.
- The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and

constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not connect an irrigation system used for pesticide application (including greenhouse systems) to a public water system unless the pesticide label prescribed safety devices for public water systems are in place with current certification. Specific local regulations may apply and must be followed.
- Do not apply when wind speed favors drift beyond the area intended for treatment. End guns must be turned off during the application if they irrigate nontarget areas.
- Do not allow irrigation water to collect or run off and pose a hazard to livestock, wells, or adjoining crops.
- Do not enter treated area during the reentry interval specified in the Agricultural Use Requirements section of this label unless required PPE is worn.
- Do not apply through sprinkler systems that deliver a low coefficient of uniformity such as certain water drive units.

Uses

Commercial Aquatic Plant Production

Use Conserve SC in commercial aquatic plant production for control of lepidopterous pests such as China mark moth (*Nymphuliella daeckealis*) and light brown apple moth. This use is restricted to commercial facilities that utilize fully contained above or in-ground pools or containers for the purpose of commercial production of aquatic ornamental plants.

Application Timing: Apply when lepidopterous larvae are present. Applications at 2-week intervals, two to three times per year, have been shown to be effective when larvae are present.

Application Rate: Prepare a spray mixture containing 0.12 fl oz (3.5 mL) of Conserve SC per gallon of water. Apply the spray mixture to aquatic foliage at a rate not to exceed 1 gallon of spray mixture per 100 sq ft of water surface area using suitable hand or power-operated application spray equipment.

Phytotoxicity: Conserve SC has been tested alone on a wide variety of herbaceous and woody ornamental plants without phytotoxic symptoms. However, because it is not possible to test all possible tank mix combinations (including adjuvants) and ornamental plant species, varieties, and cultivars, and because environmental factors and varietal and plant stage of growth may affect phytotoxic expression, it is recommended that a small group of test plants be treated at the anticipated use rate of Conserve SC either alone or in tank mix combinations and observed for at least 5 to 7 days to determine phytotoxicity before treating large numbers of those plants. **Note:** The user assumes responsibility for determining if Conserve SC is safe to treated plants when applied either alone or in tank mixtures under commercial growing conditions.

Specific Use Restrictions:
- Do not apply this product to aquatic environments (such as ponds; landscape pools or containers or ponds; lakes, rivers or streams) other than fully contained commercial production pools or containers.
- **Minimum Treatment Interval:** Do not make applications less than 7 days apart.
- If water treated with Conserve SC needs to be discharged due to cleaning, repairing, or other reasons, discharge is allowed only onto land. Do not discharge water treated with Conserve SC from commercial production pools or containers into surface water.

Fire Ants – Mound Application in Turfgrass and Ornamentals, in Greenhouses, and in Other Outdoor Areas

Dilution Rate (fl oz)	
Conserve SC per 1 gallon	**Conserve SC per 10 gallons**
0.1 (2.96 mL)	1 (29.6 mL)

Apply diluted Conserve SC to individual fire ant mounds as a drench application. Use 1 to 2 gallons per mound depending upon the mound size. For mounds less than 8 inches in diameter, use 1 gallon of dilution per mound. Use a higher volume, up to 2 gallons, on mounds 8 inches or larger in diameter. Apply approximately 10% of the dilution volume around the perimeter of the mound out to about 12 inches and pour the remaining volume directly on the mound. Do not disturb mounds prior to application. If possible, apply following a recent rainfall. For best results, apply in cool weather, 65 to 85°F, or in early morning or late evening hours. Treat new mounds as they appear. Do not use pressurized sprays as they may disturb the ants and cause migration, reducing control.

Home Gardens

Add the required amount of Conserve SC to the specified amount of water, mix thoroughly, and apply uniformly to plant foliage to point of runoff, but do not exceed 3 gallons of spray per 1000 sq ft. Uniform coverage of both upper and lower leaf surfaces is essential for effective insect control. Mix only as much spray as needed for a single treatment. Do not use kitchen utensils for measuring. Keep measuring utensils with product and away from children.

Unit of Measure	Amount of Conserve SC to Use per 100 Gallons of Spray
Fluid Ounces (fl oz)	8 fl oz
Milliliters (mL)	236.6 mL
Tablespoons (Tbs)	16 Tbs
Teaspoons (tsp)	48 tsp

Apply when listed pests are present. Target applications against early insect developmental stages whenever possible. Repeat applications may be made as indicated in the table below, but follow resistance management guidelines.

In the state of Georgia, do not apply Conserve SC to: broccoli raab, Chinese cabbage (bok choy), collards, kale, mizuna, mustard greens, mustard spinach, rape greens.

Crops	Pests Controlled	Maximum Number of Applications per Season	Minimum Reapplication Interval (Days)	Preharvest Interval (Days)
apple and other pome fruits (crop group 11) including crabapples, loquat, mayhaw, pears, and quince	codling moth European grapevine moth leafminers leafrollers light brown apple moth oriental fruit moth thrips tufted apple budmoth	5	10	7
asparagus (post-harvest to protect ferns)	asparagus beetles	3	7	60
banana and plantain	banana rust thrips caterpillars Hawaiian flower thrips	4	7	56
***Brassica* (cole) leafy vegetables** (crop group 5) including broccoli, broccoli raab, Brussels sprouts, cabbage, cauliflower, cavalo, Chinese broccoli, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, and rape greens	armyworms cabbage looper diamondback moth flea beetle (suppression) imported cabbage worm leafminers thrips worms (caterpillars)	5	4	1
bulb vegetables (crop group 3) including dry bulb onion, garlic, great-headed (elephant) garlic, green onion, leek, shallot, and welch onion	armyworms dipteran leafminers European corn borer flea beetle loopers thrips (suppression)	5	4	1
bushberries (subgroup 13B) including blueberry, currant, elderberry, gooseberry, huckleberry, juneberry, lingonberry, and salal	armyworms European grapevine moth fireworms fruitfly (suppression) fruitworms leafrollers light brown apple moth loopers thrips	5	6	3
caneberries (subgroup 13A) including blackberry, black raspberry, loganberry, red raspberry, and cultivars and/or hybrids of these	armyworms European grapevine moth fireworms fruitworms leafrollers light brown apple moth loopers sawfly	5	5	1
citrus (crop group 10) including grapefruit, lemons, limes, oranges, and tangerines	katydids leafminers thrips worms (caterpillars)	5	6	1
cucurbits (crop group 9) including cucumber, edible gourds, muskmelons (cantaloupe, honeydew, etc.), pumpkin, summer and winter squash, and watermelon	armyworm leafminers loopers thrips worms (caterpillars)	5	5	all except cucumber, 3 cucumber, 1
dates	carob moth	3	7	7
fruiting vegetables (crop group 8) **and okra** including eggplant, ground cherry, pepino, pepper, tomatillo, and tomato	Colorado potato beetle European corn borer flea beetle leafminers loopers thrips worms (caterpillars)	5	4	1
grape	European grapevine moth leafrollers light brown apple moth thrips worms (berry moth)	5	5	7

Crops (Cont.)	Pests Controlled	Maximum Number of Applications per Season	Minimum Reapplication Interval (Days)	Preharvest Interval (Days)
herbs (subgroup 19A) including angelica, balm, basil, borage, burnet, camomile, catnip, chervil (dried), chive, chive (Chinese), cilantro, cilantro (leaf), clary, coriander (leaf), costmary, curry (leaf), dillweed, horehound, hyssop, lavender, lemongrass, lovage (leaf), marigold, marjoram, nasturtium, parsley (dried) pennyroyal, rosemary, rue, sage, savory (summer and winter), sweet bay, tansy, tarragon, thyme, wintergreen, woodruff, and wormwood	leafminers loopers thrips worms (caterpillars)	5	5	1
leafy vegetables (crop group 4) **and watercress** including amaranth, arugula, cardoon, celery, celtuce, chervil, Chinese celery, Chinese spinach, corn salad, dandelion, dock, edible chrysanthemum, endive (escarole), Florence fennel, garden cress, garden purslane, garland chrysanthemum, head lettuce, leaf lettuce, leafy amaranth, New Zealand spinach, orach, parsley, radicchio (red chicory), rhubarb, spinach, Swiss chard, tampala, upland cress, vine spinach, watercress, winter cress, winter purslane, and yellow rocket	diamondback moth leafminers loopers thrips worms (caterpillars)	5	4	1
leaves of legume vegetables (subgroup 7A) **and turnip greens** including any cultivar of bean and field pea (except soybean)	diamondback moth leafminers loopers thrips worms (caterpillars)	5	4	3
leaves of root and tuber vegetables (crop group 2) including bitter cassava, black salsify, carrot, celeriac (celery root), chicory, dasheen (taro), edible burdock, garden beet, oriental radish (daikon), parsnip, radish, rutabaga, sugar beet, sweet cassava, sweet potato, tanier, true yam, turnip, turnip greens, and turnip-rooted chervil	diamondback moth leafminers loopers thrips worms (caterpillars)	5	4	3
legume vegetables (succulent and dried beans and peas) (crop group 6) including-blackeyed pea, chickpea, cowpea, crowder pea, edible-pod pea, English pea, fava bean, field bean, field pea, garbanzo bean, garden pea, green pea, kidney bean, lentil, lima bean, lupins, mungbean, navy bean, pigeon pea, pinto bean, runner bean, snap bean, snow pea, sugar snap pea, tepary bean, wax bean, and yardlong bean	borers leafminers loopers thrips worms (caterpillars)	5	5	succulent, 3 dried, 28
peppermint and spearmint	armyworms cutworms leafminers loopers thrips (suppression)	4	4	7
pomegranate	fruit fly leafrollers moths naval orangeworm peach twig borer thrips	3	10 - 14	7
root and tuber vegetables (crop group 1) **and artichoke** including garden beet and sugar beet,	armyworms European corn borer flea beetle leafminers loopers thrips	4	7	3
black salsify, carrot, chicory, ginseng, horseradish, parsnip, salsify, skirret, Spanish salsify, turnip-rooted chervil, and turnip-rooted parsley		4	5	3
celeriac, edible burdock, oriental radish, radish, rutabaga, turnip and other root vegetables not specifically listed		3	5	3
arracacha, arrowroot, bitter cassava, chayote root, Chinese artichoke, chufa, dasheen, edible canna, ginger, Jerusalem artichoke, leren, potato, sweet cassava, sweet potato, tanier, true yam, tumeric, and yam bean	artichoke plume moth Colorado potato beetle corn borers leafminers light brown apple moth loopers thrips worms (caterpillars)	4	7	7
artichoke		4	7	2

Crops (Cont.)	Pests Controlled	Maximum Number of Applications per Season	Minimum Reapplication Interval (Days)	Preharvest Interval (Days)
spices (subgroup 19B) including allspice, anise (seed), annatto (seed), black caraway, caper (buds), caraway, cardamom, cassia (buds), celery (seed), cinnamon, clove (buds), common fennel, coriander (seed), culantro (seed), cumin, dill (seed), Florence fennel (seed), fenugreek, grains of paradise, juniper (berry), lovage (seed), mace, mustard (seed), nutmeg, poppy (seed), saffron, star anise, vanilla, and white pepper	flea beetle leafminers thrips	5	10	14
stone fruits (crop group 12) including apricot, cherries, nectarine, peach, plum, and prune	borers European grapevine moth fruit flies fruitworm leafminers leafrollers light brown apple moth oriental fruit moth thrips worms (caterpillars)	5	7	apricot, all except cherry, peach, plum, prune, nectarine, 14 cherry, plum, prune, 7 nectarine, peach 1
strawberry	armyworms European grapevine moth leafrollers light brown apple moth thrips	5	5	1
sweet corn and popcorn (for earworms, treat silk frequently as it grows)	corn borers earworm worms (caterpillars)	5	3	1
tree nuts (crop group 14) **and pistachio** including almonds, cashew, chestnut, filbert (hazelnut), macadamia, pecans, and walnuts	codling moth filbert worm husk fly (suppression) leafrollers light brown apple moth navel orangeworms peach twig borer pecan nut casebearer redhumped caterpillar shuckworms webworms	3	7	1
tropical tree fruits including, acerola, atemoya, avocado, biriba, black sapote, canistel, cherimoya, custard apple, feijoa, guava, ilama, jaboticaba, longan, lychee, mamey sapote, mango, papaya, passionfruit, pulasan, rambutan, sapodilla, soursop, Spanish lime, star apple, starfruit, sugar apple, ti leaves, wax jambu (wax apple), and white sapote	suppression of European grapevine moth katydids leafrollers light brown apple moth thrips worms (caterpillars)	2	7	1

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides. If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. For **thrips**, if additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least two applications. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Ornamentals (Herbaceous and Woody) Growing Outdoors, in Nurseries (Including Conifer Seed Orchards), or in Greenhouses

Pests	Conserve SC fl oz/gallon	Conserve SC fl oz/100 gallons	Conserve SC fl oz/acre
chrysomelid leaf feeding beetles, such as: elm leaf (1) viburnum leaf (larvae) willow leaf (1) European grapevine moth lepidopterous larvae, such as: azalea caterpillar bagworm beet armyworm cabbage looper California oakworm cankerworm diamondback moth eastern tent caterpillar fall webworm Florida fern caterpillar geranium budworm gypsy moth light brown apple moth oblique banded leafroller oleander caterpillar orange striped oakworm spruce budworm tussock moths (hickory, whitemarked) western tent caterpillar winter moth yellownecked caterpillar (2) sawfly larvae, such as: European pine pear redheaded pine shore fly thrips (exposed) in greenhouse settings, such as: (3) chilli Cuban laurel western flower	0.06 (1.77 mL)	6 (177 mL)	24 (709.8 mL)
dipterous gall midges pinyon spindlegall thrips (exposed) in outdoor settings, such as: (3) chilli Cuban laurel western flower	0.1 (2.96 mL)	11 (325.3 mL)	44 (1301 mL)
dipterous leafminers, such as: serpentine (4) emerald ash borer (5) lewis mites Nantucket pine tip moth spider mites, such as: spruce two-spotted (6) (see 6 below for mite suppression/control expectations)	0.2 (5.92 mL)	22 (650.6 mL)	88 (2602 mL)

Numbers in parentheses (-) refer to Pest-Specific Use Directions.

Pest-Specific Use Directions (for pest control in the greenhouse or nursery, also refer to Insecticide Resistance Management for Greenhouses):

1. **Elm leaf beetle** and **willow leaf beetle** (adults and larvae): For effective control, apply in the spring or early summer when feeding is observed.
2. For effective control of the following lepidopterous larvae:
   - **Bagworms:** Apply when bags are small and larvae are actively feeding.
   - **Beet armyworms:** Apply when larvae are small.
   - **Diamondback moth:** If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least two applications.
   - **Gypsy moth larvae:** Apply when larvae are small and all eggs have hatched.
   - **Spruce budworms:** Apply when larvae are exposed and actively feeding.
   - **Tent caterpillars** and **fall webworms:** Apply early when webs are first observed and direct the spray into the web and surrounding foliage within at least 3 feet of the nest.
3. **Exposed thrips (chilli, Cuban laurel** and **western flower):** For effective control, apply early at first signs of infestation and repeat until infestation is controlled, but follow resistance management guidelines. For thrips, if additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least two applications.
4. **Serpentine leafminers:** For effective control, apply early when stippling or mining of leaves is first observed and repeat until infestation is controlled, but follow resistance management guidelines. Three sequential applications at 7-day intervals can maximize control. Addition of a nonionic spray adjuvant such as DYNE-AMIC spray adjuvant at 0.1% v/v in greenhouse settings (see Phytotoxicity) has been shown to enhance control of leafminers (follow surfactant manufacturer's label directions).
5. Apply to foliage and bark of tree when adult **emerald ash borer** are first observed emerging from the bark or when adult emerald ash borer are first noticed feeding on the leaves of the tree. Reapply every 7 to 10 days until no additional adult emerald ash borer activity is observed. Application to trees already heavily infested may not prevent the eventual loss of the tree due to existing pest damage and tree stress.

6. **Spruce spider mites** and **two-spotted spider mites:** Apply when spider mites are first observed prior to webbing and before mite populations have become severe. Reapply after 7 to 10 days (3 to 5 days in greenhouses and structures that can be altered to be closed or open) to contact newly hatched nymphs and repeat until infestation is managed. **Uniform coverage of both upper and lower leaf surfaces is critical**.

   Note: Control of spider mites with Conserve SC in certain research trials has been variable. The variability between these evaluations is not well understood but may be due to late application timing when mite populations and webbing were severe, poor spray coverage of both the upper and lower leaf surfaces, or interaction of the leaf surface with residues of Conserve SC. Addition of a nonionic spray adjuvant such as Activate Plus, DYNE-AMIC, Joint Venture, Phase, and Thoroughbred at 0.1% v/v in greenhouse settings and at label rates in outdoor settings (see Phytotoxicity) has been shown to improve spray coverage and enhance control of spider mites (follow surfactant manufacturer's label directions).

Application Method: Dilute Conserve SC in water and apply using suitable hand or power-operated application equipment (such as portable pump-up, backpack, hydraulic, boom) in a manner to provide complete and uniform plant coverage. Use of Conserve SC in lath and shadehouses is permitted.

Application Rate: Conserve SC may be used up to a maximum labeled rate of 0.2 fl oz per gallon (22 fl oz per 100 gallons, 88 fl oz per acre) per application on trees and ornamentals as a general treatment regardless of the target insect pest. Use pest specific rates when a single insect pest or group of insect pests within a rate category is the only intended target.

Spray Volume: Attempt to penetrate dense foliage, but avoid over-spraying to the point of excessive runoff. Uniform coverage of both upper and lower leaf surfaces is critical for effective insect control.

Tank Mix: Conserve SC may be tank mixed with other insect control products if broader spectrum insect control is required. When using tank mixtures, also follow all label directions of the mixing partner(s).

Phytotoxicity: Conserve SC has been tested alone on a wide variety of herbaceous and woody ornamental plants without phytotoxic symptoms. However, because it is not possible to test all possible tank mix combinations (including adjuvants) and ornamental plant species, varieties, and cultivars, and because environmental factors and varietal and plant stage of growth may affect phytotoxic expression, it is recommended that a small group of test plants be treated at the specified use rate of Conserve SC either alone or in tank mix combinations and observed for at least 5 to 7 days to determine phytotoxicity before treating large numbers of those plants. **Note:** The user assumes responsibility for determining if Conserve SC is safe to treated plants when applied either alone or in tank mixtures under commercial growing conditions. Research has demonstrated that some spotting of African violet (*Saintpaulia*) flowers may occur.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides. If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. For **thrips** and **diamondback moth**, if additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least two applications. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Specific Use Restrictions:
- **Minimum Treatment Interval:** Except for greenhouses and structures that can be altered to be closed or open, do not make applications less than 7 days apart.

Tree Farms or Plantations

Conifers, including Christmas trees, and deciduous trees

Pests	Conserve SC (fl oz/acre)
lepidopterous larvae, such as: bagworm cone moth coneworm fall webworm gypsy moth hemlock looper jackpine budworm pine tip moth redhumped caterpillar spruce budworm tent caterpillar tussock moths light brown apple moth sawfly larvae, such as: European pine pear redheaded pine	4 – 16 (118.3 – 473.2 mL)

Application Timing: Time applications to reach larvae when small or just hatching. A 7-day re-treatment schedule may be necessary to maintain control. Consult with your Dow AgroSciences representative, state agricultural experiment station, certified pest control advisor, or extension specialist for information on application timing for specific pests in your area.

Application Rate: The rate of Conserve SC applied per acre will depend upon tree size and severity of infestation. Use a higher rate in the rate range for large trees or heavy infestations. Apply in sufficient volume to ensure thorough coverage.

Specific Use Restrictions:
- Do not apply more than a total of 58 fl oz of Conseve SC (0.45 lb ai spinosad) per acre per year.
- **Maximum Number of Applications:** Do not make more than six applications per calendar year.

Turfgrass

Pests	Conserve SC fl oz/1000 sq ft	Conserve SC fl oz/acre
armyworms-small larvae such as: fall armyworm (1) sod webworms (including tropical) (2)	0.25 (7.4 mL)	10 (296 mL)
cutworms-small larvae such as: black cutworm variegated cutworm (1,2)	0.8 (23.7 mL)	35 (1035 mL)
annual bluegrass weevil armyworms-large larvae such as: fall armyworm (1) black turfgrass ataenius (adults) cutworms-large larvae such as: black cutworm variegated cutworm (1,2) fleas, such as: cat flea (3)	1.2 (35.5 mL)	52 (1538 mL)

Numbers in parentheses (-) refer to Pest-Specific Use Directions.

Pest-Specific Use Directions:
1. **Fall armyworm** and **black cutworm** larvae**:** Use the lower rate for control of light infestations of small larvae (less than 3/4 of an inch for armyworms, an inch or less for cutworms); use the higher rate for control of heavy infestations and large larvae (3/4 of an inch or larger for armyworms, larger than an inch for cutworms). Applications for **fall armyworms** during the early morning or late afternoon can maximize control. For best results, delay watering or mowing of the treated area for 12 to 24 hours after treatment.
2. **Black cutworm**, **sod webworm**, and **tropical sod webworm** larvae**:** Applications during the late afternoon or early evening can maximize control. For best results, delay watering or mowing of the treated area for 12 to 24 hours after treatment.
3. Control of **cat fleas:** Apply early or late in the day since effective control requires direct contact of adults and larvae with the dilute spray prior to drying. For best results, make a second application at 7 to 14 days to control adults that have emerged from pupae that may have been present during the initial treatment. Thorough spray coverage is necessary for outside areas frequented by pets. **Do not treat pets with Conserve SC**.

Application Method: Dilute Conserve SC in water and apply using suitable hand or power-operated application equipment (such as portable pump-up, backpack, hydraulic, boom, turf spray gun).

Application Rate: Conserve SC may be used up to a maximum labeled rate of 1.2 fl oz per 1000 sq ft (52 fl oz per acre) per application on turfgrass as a general treatment regardless of the target insect pest. Use pest specific rates when a single insect pest or group of insect pests within a rate category is the only intended target.

Tank Mix: Conserve SC may be tank mixed with other insect control products if broader spectrum insect control is required. When using tank mixtures, also follow all label directions of the mixing partner(s).

Resistance Management: Do not apply more than three times in any 21-day period. Whenever Conserve SC is applied up to three times in succession, this should be followed by no use of Conserve SC for a 21-day period or rotation to another insecticide class. Do not make more than six applications per season.

Specific Use Restrictions:

- **Minimum Treatment Interval:** Do not make applications less than 7 days apart.

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Label Code: D02-090-013
Replaces Label: D02-090-012
LOES Number: 010-00073

EPA accepted 01/27/11

Revisions:

1. Added all pome fruits, asparagus, banana and plantain, bulb vegetables, bushberries, caneberries, dates, grape, herbs, leaves of legume vegetables, leaves of root and tuber vegetables, okra, peppermint, pistachio, pomegranate, popcorn, root vegetables, spearmint, spices, strawberry, tree nuts, tropical tree fruits, turnip greens, and watercress.
2. Added codling moth, European grapevine moth, oriental fruit moth, thrips, and tufted apple budmoth to apple and other pome fruits.
3. Added armyworms, cabbage looper, diamondback moth, flea beetle, imported cabbage worm, and thrips to Brassica.
4. Added armyworm and loopers to cucurbits.
5. Added European corn borer, flea beetle, and loopers to fruiting vegetables and okra.
6. Added diamondback moth, loopers, and thrips to leafy vegetables.
7. Added loopers to legume vegetables.
8. Added armyworms, artichoke plume moth, European corn borer, flea beetle, leafminers, light brown apple moth, loopers, and thrips to root and tuber vegetables.
9. Added European grapevine moth, fruitworm, oriental fruit moth, and thrips to stone fruits.
10. Changed PHI for peach to 1 day.
11. Added European grapevine moth and winter moth to ornamentals.