Specimen Label

Dow AgroSciences™

Conserve® SC

Turf and Ornamental

Insect Control

®Trademark of Dow AgroSciences LLC

For control of thrips, lepidopterous larvae, foliage feeding worms, fire ants and other listed pests infesting:

- **Turfgrass**
- **Trees and ornamentals**
- **Fruiting vegetables, such as tomato, pepper and eggplant**
- **Cucurbits, such as cantaloupe and honeydew**
- **Cole crops (Brassica), such as broccoli, cabbage and cauliflower**
- **Leafy vegetables, such as lettuce, spinach and celery**
- **Tuberous vegetables, such as potatoes, sweet potatoes, yams, Jerusalem artichoke, Chinese artichoke and cassava**
- **Stone fruits, such as peaches, plums, cherries, nectarines, prunes and apricots**
- **Apple and citrus trees**
- **Commercial aquatic plants**
- **Tree farms or plantations**

Group	5	INSECTICIDE

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.

U.S. Patent No. 5,496,931 and 5,362,634

EPA Reg. No. 62719-291

Keep Out of Reach of Children

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 for 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.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies elsewhere on this label. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

Shake Well Before Use – Avoid Freezing

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.

Agricultural Use Requirements (Cont.)

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 Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.
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.

Refillable containers 5 gallons or larger:
Container Reuse: 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.

Storage and Disposal (Cont.)

Nonrefillable containers 5 gallons or larger:
Container Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.
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.

General Information

Conserve® SC Turf and Ornamental insect control, a fermentation-derived insect control agent, is recommended for control of thrips, lepidopterous larvae, foliage feeding worms, and fire ants infesting fruiting vegetables, cucurbits, cole crops (Brassica), leafy vegetables, tuberous vegetables, stone fruits, apple and citrus trees, commercial aquatic plants, trees and ornamentals, tree farms or plantations, and turfgrass. Conserve SC should be mixed with water and applied in a manner to provide complete and uniform plant coverage. Due to its unique mode of action, Conserve SC can be used in resistance management programs in rotation with many other classes of products.

General Use Precautions

- Do not treat pets.
- Regardless of the crop or pest being treated (excluding 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 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 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. It is a violation of federal law to use this product in a manner inconsistent with its labeling.
- 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.

- Conserve SC may be applied by sprinkler irrigation 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. 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, but not limited to, 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.

Integrated Pest Management (IPM) Programs
Conserve SC is recommended for IPM programs including insect control on turfgrass and ornamentals. Other than reducing the target pest species as a food source, Conserve SC does not significantly impact the natural predaceous arthropod complexes including ladybird beetles, lacewings, minute pirate bugs, and predatory mites. The feeding activities of these predatory beneficials will aid in extending natural control of other insect pests and reduce the likelihood of secondary pest outbreaks. If Conserve SC is tank mixed with an insect control product that reduces its selectivity in preserving predatory beneficials, then the full benefit of Conserve SC to the IPM program may not be realized.

Greenhouse Pest Resistance Avoidance Recommendations
Conserve SC contains a Group 5 insecticide. Any insect or mite control agent may become less effective over time if target insects or mites develop resistance to its mode of action. Adherence to the following greenhouse pest resistance avoidance recommendations will help to ensure the prolonged usefulness of insect and mite control products in the greenhouse:

- Avoid use of the same active ingredient or mode of action on consecutive generations of insects or mites. However, multiple applications to reduce a single generation are acceptable. If uncertain of the generation cycle, no more than 3 consecutive applications should be used, nor should there be continuous use for more than 30 days. Consider rotating to a different active ingredient with a different mode of action or use no treatment for the next generation or 30 days if the generation cycle is not known.
- Avoid using less than labeled rates of any insect or mite control product when applied alone or in tank mixtures.
- Applications should be targeted against early insect and mite developmental stages whenever possible.
- For guidance, consult with the state agricultural experiment station or local extension specialist for information on resistance management programs in your area.
- If possible, include multiple tactics (e.g., cultural or biological controls) when using IPM programs.

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

- Regardless of the crop or pest being treated (excluding 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 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 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 control products and never apply more than 3 consecutive applications of Conserve SC or products containing the same active ingredient or products with the same mode of action. Use only recommended label rates.

- It is recommended to make localized area treatments of ornamental plants where pest problems are anticipated or occur rather than general area-wide broadcast treatments.

[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.

Mixing

Shake Well Before Use – Avoid Freezing

Mixing 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.

Tank Mixing: When tank mixing Conserve SC with other materials, a compatibility test (jar test) using relative proportions of tank mix ingredients should be conducted prior to mixing ingredients in the spray tank. Vigorous, continuous agitation during mixing, filling, and throughout application is needed 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 water dispersible granules and dry flowable products. 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.

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 or mechanical agitator is particularly useful for this purpose.

Uses

Commercial Aquatic Plant Production

Conserve® SC Turf and Ornamental insect control is recommended for control of China mark moth larvae infesting aquatic ornamental plants grown in commercial production facilities. This recommended 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 and 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. Apply when China mark moth larvae are present. Applications at 2-week intervals 2 to 3 times per year have been shown to be effective when larvae are present.

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 professional 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.

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.
- Do not reapply within less than 7 days.
- 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, Greenhouses, and Other Outdoor Areas

Recommended Dilution Rate	
Conserve SC per 1 gallon	**Conserve SC per 10 gallons**
0.1 fl oz (3 mL)	1 fl oz (30 mL)

Specific Use Directions:

Fire ants, such as red imported: 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, make application 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. Pressurized sprays should not be used as they may disturb the ants and cause migration, reducing control.

Home Gardens

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.

Add the required amount of Conserve SC to the recommended amount of water, mix thoroughly, and apply uniformly to plant foliage to point of runoff. It is recommended to 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)	240 mL
Tablespoons (Tbs)	16 Tbs
Teaspoons (tsp)	48 tsp

Apply when listed pests are present. Repeat applications may be made as indicated in the table below.

Crops	Pests Controlled	Maximum Number of Applications per Season	Minimum Reapplication Interval	Preharvest Interval
apple trees	leafminers leafrollers	6	10	7
citrus trees, including, but not limited to: grapefruit, lemons, limes, oranges, and tangerines	katydids leafminers thrips worms (caterpillars)	6	6	1
cole crops (Brassica vegetables), including, but not limited to: broccoli, broccoli raab, brussels sprouts, cauliflower, cavalo, Chinese broccoli, cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, and rape greens	leafminers worms (caterpillars)	6	4	1
cucurbits, including, but not limited to: cucumber, edible gourds, muskmelons (cantaloupe, honeydew, etc.), pumpkin, summer and winter squash, and watermelon	leafminers thrips worms (caterpillars)	6	5	all except cucumber, 3 cucumber, 1
fruiting vegetables, including, but not limited to: eggplant, ground cherry, pepino, pepper, tomatillo, and tomato	Colorado potato beetle leafminers thrips worms (caterpillars)	6	4	1
leafy vegetables, including, but not limited to: arugula, celery, chervil, corn salad, cress, dandelion, dock, edible chrysanthemum, endive, fennel, garden purslane, head and leaf lettuce, parsley, radicchio, rhubarb, spinach, and Swiss chard	leafminers worms (caterpillars)	6	4	1
stone fruits, including, but not limited to: apricots, cherries, nectarines, peaches, plums, and prunes	borers fruit flies leafminers leafrollers worms (caterpillars)	6	7	peach, apricot, all except cherry plum, prune, nectarine, 14 cherry, plum and prune, 7 nectarine, 1
succulent beans and peas, including, but not limited to: blackeyed pea, garbanzo bean, garden pea, lima bean, snap bean, and snow pea	borers leafminers thrips worms (caterpillars)	6	5	3
sweet corn	corn borers worms (caterpillars), including earworm	6	3	1
tuberous and corm vegetables, including, but not limited to: cassava, chayote root, Chinese artichoke, ginger, Jerusalem artichoke, potatoes, sweet potatoes, tumeric, and yams	Colorado potato beetle corn borers leafminers thrips worms (caterpillars)	6	7	7

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

Use Conserve® SC Turf and Ornamental insect control to control insect pests listed in the following table. Dilute Conserve SC in water and apply using suitable hand or power-operated application equipment (such as, but not limited to, portable pump-up, backpack, hydraulic, boom) in a manner to provide complete and uniform plant coverage. 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.

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 recommended pest specific rates when a single insect pest or group of insect pests within a rate category is the only intended target. **Except for greenhouses and structures that can be altered to be closed or open, do not reapply within less than 7 days.**

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).

Use of Conserve SC in lath and shadehouses is permitted.

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 professional 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 saintpaulia (African violet) flowers may occur.

Aerial Application

Apply in spray volume of 5 gallons or more per acre (10 gallons or more per acre for tree, 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. The boom nozzle configurations used should be patterned (e.g., at NAAA Fly-In) for both crosswind and near parallel winds. If application is made parallel to the wind direction, swath width should be adjusted 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.

Application by Chemigation (Sprinkler Irrigation)

Conserve SC may be applied by sprinkler irrigation 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 in Dow AgroSciences supplemental labeling. Do not apply to the above listed crop(s) through any other type of irrigation system.

General Directions for Chemigation:
Conserve SC may be applied through drip or overhead sprinkler irrigation systems that will apply water uniformly, 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.

Preparation: The following use directions are to be followed when this product is applied through 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 section above. Continually agitate the mixture during mixing and application.

Equipment Calibration: In order to calibrate the irrigation system and injector to apply the mixture containing Conserve SC: 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 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.

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 recommendations. 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 injection system to be thoroughly flushed clean before stopping the system.

Precautions:

- 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, you should contact state extension service specialists, equipment manufacturers or other experts.
- 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.
- 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.
- 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 runoff 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.

Specific Equipment Requirements:

- The system must contain an air gap, or approved backflow prevention device, or approved 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 backflow. Refer to the American Society of Agricultural Engineer's Engineering Practice 409 for more information or state specific regulations.
- The pesticide injection line must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection chemical supply.
- A pesticide injection pump must also contain a functional interlock, e.g., mechanical or electrical, to shut off chemical supply 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 pressure drops too low or water flow stops.
- Use of public water supply requires approval of a backflow prevention device or air gap (preferred) by both state and local authorities.
- Systems must use a metering device, such as a positive displacement injection pump (or flow meter on eductor) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. An electric powered pump must meet Section 675 for "Electrically Driven or Controlled Irrigation Machines" NEC 70.
- 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 backflow 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.

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) lepidopterous larvae, such as: azalea caterpillar bagworm beet armyworm cabbage looper California oakworm cankerworm diamondback moth E. tent caterpillar fall webworm Florida fern caterpillar geranium budworm gypsy moth oblique banded leafroller oleander caterpillar orange striped oakworm spruce budworm tussock moths (hickory, whitemarked) W. tent caterpillar yellownecked caterpillar (2) sawfly larvae, such as: European pine pear redheaded pine shore fly thrips (exposed) in greenhouse settings, such as: (3) Cuban laurel western flower	0.06 (2 mL)	6 (177 mL)	24 (708 mL)
dipterous gall midges pinyon spindlegall thrips (exposed) in outdoor settings, such as: Cuban laurel western flower (3)	0.1 (3 mL)	11 (325 mL)	44 (1300 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 (6 mL)	22 (651 mL)	88 (2604 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 Greenhouse Pest Resistance Avoidance Recommendations):

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.
   - **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.
   - **Gypsy moth larvae:** Apply when larvae are small and all eggs have hatched.
   - **Spruce budworms:** Apply when larvae are exposed and actively feeding.
3. **Exposed thrips (Cuban laurel** and **western flower):** For effective control, apply early at first signs of infestation and repeat until infestation is controlled.
4. **Serpentine leafminers:** For effective control, apply early when stippling or mining of leaves is first observed and repeat until infestation is controlled. 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 above) has been shown to enhance control of leafminers (follow surfactant manufacturer's label recommendations).
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 above) has been shown to improve spray coverage and enhance control of spider mites (follow surfactant manufacturer's label recommendations).

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	4 - 16
sawfly larvae, such as: European pine pear redheaded pine	

Specific Use Directions:

Application Timing: Time applications to reach larvae when small or just hatching. Repeat application as 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 Rates: The rate of Conserve SC 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.

Restrictions: Do not apply more than 58 fl oz of Conseve SC (0.45 lb a.i. spinosad) per acre per year.

Turfgrass

Use Conserve® SC Turf and Ornamental insect control to control insect pests listed in the following table. Dilute Conserve SC in water and apply using suitable hand or power-operated application equipment (such as, but not limited to, portable pump-up, backpack, hydraulic, boom, turf "spray gun"). 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 recommended pest specific rates when a single insect pest or group of insect pests within a rate category is the only intended target. **Do not reapply within less than 7 days.**

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).

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 mL)	10 (296 mL)
cutworms-small larvae such as: black cutworm variegated cutworm (1,2)	0.8 (24 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 mL)	52 (1538 mL)

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

Pest-Specific Use Directions:

1. **Fall armyworm** and **black cutworm** larvae**:** The lower rate may be used for control of light infestations of small larvae (less than 3/4 of an inch for armyworms, an inch or less for cutworms); the higher rate should be used 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. Watering or mowing of the treated area should be delayed 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. Watering or mowing of the treated area should be delayed for 12 to 24 hours after treatment.
3. Control of **cat fleas** may be provided by direct contact of adults and larvae with the dilute spray prior to drying. A second application at 7 to 14 days is recommended 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**.

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Revisions:

1. For ornamentals, added aerial application, fl oz/acre rate, and emerald ash borer to list of pests.