

Specimen Label



Conserve^{*} SC

Turf and Ornamental

Insect Control

*Trademark of Dow AgroSciences LLC

For control of lepidopterous larvae (such as: cutworm, sod webworm, armyworm, Eastern tent caterpillar, gypsy moth larvae, bagworm, fall webworm, and others), sawflies, Chrysomelid leaf feeding beetles such as elm and willow leaf beetles, Dipterous gall midges, thrips, and Dipterous leafminers infesting turfgrass and ornamentals and fire ants.

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

Contains 1 pound of active ingredient per gallon.

U.S. Patent No. 5,496,931

EPA Reg. No. 62719-291

Keep Out of Reach of Children

Precautionary Statements

CAUTION PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Harmful if absorbed through skin.

Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

Personal Protective Equipment (PPE)

Non-WPS Uses [Any use NOT covered by the Worker Protection Standard (40 CFR Part 170)]: There are no specific PPE requirements for applicators and other handlers; however, the following is recommended as a minimum:

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

WPS Uses: Applicators and other handlers who handle this product for any use covered by the Worker Protection Standard (40 CFR Part 170) -- such as agricultural plants grown for sale or research purposes in nurseries, greenhouses, and sod and seed farms -- must wear:

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

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.

First Aid

If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

Environmental Hazards

This product is highly toxic to bees exposed to direct spray on blooming crops or other vegetation. Avoid use when bees are actively foraging. Bee foraging and protective information may be obtained from your Cooperative Agricultural Extension Service. This product is highly 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 disposing of equipment washwaters.

Notice: Read the entire label. Use only according to label directions. **Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" elsewhere on this label.**

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.

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
- Waterproof gloves
- 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 or disposal.

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

Disposal: Wastes resulting from the use of this product may be disposed of on site according to label use directions or at an approved waste disposal facility.

Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burning, stay out of smoke.

General Information

Conserve® SC Turf and Ornamental insect control is recommended for control of lepidopterous larvae (such as: cutworm, sod webworm, armyworm, Eastern tent caterpillar, gypsy moth larvae, bagworm, fall webworm, and others), sawflies, Chrysomelid leaf feeding beetles such as elm and willow leaf beetles, Dipterous gall midges, thrips, and Dipterous leafminers infesting turfgrass and ornamentals and fire ants. Conserve SC should be mixed with water and applied in a manner to provide complete and uniform plant coverage.

Conserve SC is a fermentation-derived insect control agent for insect control and management on turfgrass and ornamentals. Due to its unique mode of action, Conserve SC can be used in resistance management programs in rotation with many other classes of products.

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. Conserve SC will not flare aphids or mites. If Conserve SC is tank mixed with any 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

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 three 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 Integrated Pest Management Programs.

Requirements for Use of Conserve SC in Greenhouses¹ and for Commercial Production of Herbaceous (non-woody) Ornamentals in Nurseries¹

- Regardless of the crop or pest being treated, do not apply Conserve SC more than 10 times in a 12 month period inside a greenhouse or a structure which can be altered to be closed or open. 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. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- Because generations of a specific pest may overlap, rotate control products and never apply more than three 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.
- Do not treat vegetables or fruit trees (transplants, seedlings, or mature plants) with Conserve SC.

¹A 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

Mixing Conserve SC (Suspension Concentrate) Alone: Fill the spray tank with water to about 1/2 of the total spray volume required. Start agitation and add the required amount of Conserve SC. Continue mixing and agitation while 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 and 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 total spray volume required. Start agitation. Add different formulation types in the order indicated below, allowing time for complete mixing and dispersion after addition of each product. Allow extra mixing and dispersion 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 20-35 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 ¾ 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 and 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.

General Use Precautions

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

Do not treat pets.

Do not treat vegetable gardens.

Do not treat vegetables or fruit trees (transplants, seedlings, or mature plants) with Conserve SC.

Regardless of the crop or pest being treated, do not apply Conserve SC more than 10 times in a 12 month period inside a greenhouse or a structure which can be altered to be closed or open. For 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. 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.

Keep out of fish pools and other bodies of water.

Chemigation: Do not apply through any type of irrigation equipment.

Approved Uses

Turfgrass

Use Conserve SC 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/1000 sq ft (52 fl oz/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.

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).

Turfgrass Pests †	Conserve SC fl oz/1000 sq ft (ml/1000 sq ft) ††	Conserve SC fl oz/acre (ml/acre) ††
Armyworms-small larvae (Such as: Fall) (1) Sod webworms (including Tropical) (2)	0.25 fl oz/1000 sq ft (7 ml/1000 sq ft)	10 fl oz/acre (296 ml/acre)
Cutworms-small larvae (Such as: Black, Variegated) (1,2)	0.8 fl oz/1000 sq ft (24 ml/1000 sq ft)	35 fl oz/acre (1035 ml/acre)
Armyworms-large larvae (Such as: Fall) (1) Cutworms-large larvae (Such as: Black, Variegated) (1,2) Fleas (Such as: Cat) (3)	1.2 fl oz/1000 sq ft (35 ml/1000 sq ft)	52 fl oz/acre (1538 ml/acre)

† Numbers in parentheses refer to "Specific Directions." **Do not reapply within less than 7 days.**

†† ml=milliliters, 1ml=1cc (cubic centimeter)

Specific Directions:

- 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.
- 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.
- 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 7-14 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.**

Ornamentals (Herbaceous and Woody) Growing Outdoors, in Nurseries, or in Greenhouses

Use Conserve SC 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/gallon (22 fl oz/100 gallons) per application on 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.

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 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.**

Ornamental Pests †	Conserve SC fl oz/gallon (ml/gallon) ††	Conserve SC fl oz/100 gallons (ml/100 gallons) ††
Chrysomelid leaf feeding beetles (Such as: Elm leaf, Willow leaf) (1) Lepidopterous larvae (Such as: Azalea caterpillar, Bagworm, Beet armyworm, Cabbage looper, Cankerworm, Diamondback moth, E. tent caterpillar, Fall webworm, Gypsy moth, Hickory and whitemarked tussock moths, Oleander caterpillar, Spruce budworm, Yellownecked caterpillar) (2) Sawfly larvae (Such as: European pine, Pear, Redheaded pine) Thrips (exposed) (Such as: Cuban laurel, Western flower) (3)	0.06 fl oz/gallon (2 ml/gallon)	6 fl oz/100 gallons (177 ml/100 gallons)
Dipterous gall midges (Such as: Honeylocust pod gall) (4)	0.1 fl oz/gallon (3 ml/gallon)	11 fl oz/100 gallons (325 ml/100 gallons)
Dipterous leafminers (Such as: Serpentine) (5) Spider mites (Such as: Spruce, Two-spotted) (6) (See no. 6 below for mite suppression/control expectations)	0.2 fl oz/gallon (6 ml/gallon)	22 fl oz/100 gallons (651 ml/100 gallons)

† Numbers in parentheses refer to "Specific Directions." **Except for greenhouses and structures which can be altered to be closed or open, do not reapply within less than 7 days.**

†† ml=milliliters, 1ml=1cc (cubic centimeter)

Specific Directions:

- For effective control of **Elm leaf beetle** and **Willow leaf beetle** adults and larvae, applications should be made in the spring or early summer when feeding is observed.
- Lepidopterous larvae:**
 - For effective control of **Bagworms**, applications should be made when bags are small and larvae are actively feeding.
 - For effective control of **Beet armyworms**, applications should be made when larvae are small.
 - For effective control of **E. tent caterpillar** and **Fall webworms**, applications should be made early when webs are first observed and the spray should be directed into the web and surrounding foliage within at least three feet of the nest.
 - For effective control of **Gypsy moth** larvae, applications should be made when larvae are small and all eggs have hatched.
 - For effective control of **Spruce budworms**, applications should be made when larvae are exposed and actively feeding.
- For effective control of exposed **Cuban laurel thrips** and **Western flower thrips**, it is recommended to treat early at first signs of infestation and repeat until infestation is controlled.
- For effective control of **Honeylocust pod gall midges**, growing tips of plants should be treated as growth starts in the spring with retreatments at 7-10 day intervals until infestation is controlled.
- For effective control of **Serpentine leafminers**, it is recommended to treat 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.
- Spruce spider mites** and **Two-spotted spider mites:** It is recommended to begin treatment when spider mites are **first observed prior to webbing and before mite populations have become severe. Reapply after 7-10 days (3-5 days in greenhouses and structures which 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 university, contract research, and EUP evaluations 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 Conserve SC residues.

Fire Ants in Turfgrass and Ornamentals, in Greenhouses, and in Other Outdoor Areas

	Conserve SC per 1 gallon	Conserve SC per 10 gallons
Fire ants - mounds (Such as: Red imported) (1)	0.1 fl oz (3 ml) †	1 fl oz (30 ml) †

† ml=milliliters, 1ml=1cc (cubic centimeter)

Specific Directions:

For individual **Fire ant mounds**, apply diluted Conserve SC as a drench application. Use one to two gallons per mound depending on

the mound size. For mounds less than 8 inches in diameter, use one gallon of dilution per mound. Use a higher volume, up to two 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.

Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

- Refund of purchase price paid by buyer or user for product bought, or
- Replacement of amount of product used

Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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Label code: D02-090-007
 Replaces; D02-090-006

EPA-accepted: 10-28-98

Revisions: Formatting changes only. Label text matches previous version with label code D02-090-006.

- Greenhouse uses added to label
- Directions for fire ant control added to label
- Additional pests added to list of Ornamental Pests controlled and Turfgrass Pests controlled