



For the Control of Pests of Turf, Ornamentals and the Control of a Range of Urban Pests; Spiders, Ants, Cockroaches, Mosquitoes, Fleas, Flies & Ticks; and for the Management of Subterranean Termites

Ceasefire 200 SC Insecticide

Technical Brief

- Active Ingredient:** 200 g/L bifenthrin
- Mode of Action Group:** 3A – Pyrethroids (Sodium channel modulators – Nerve action)
- Formulation:** Suspension Concentrate (SC)
- Mode of Action:** Sodium channel modulator. Bifenthrin affects the central and peripheral nervous system of insects causing paralysis. Bifenthrin is a broad-spectrum insecticide that works by interfering with a nerve cell's ability to send a normal signal by jamming open tiny gates on the cell that need to open and close rapidly to carry the message. Bifenthrin is a Type I pyrethroid that affects the central and peripheral nervous system by interfering with sodium channel gating. Pyrethroids delay the closure of the sodium channel. Type I pyrethroids such as bifenthrin tend to hold the channel open for shorter times compared to Type II pyrethroids. In general, exposure to toxic doses of these compounds causes incoordination, convulsions, and paralysis. Contact and stomach action with some residual effect.
- Behaviour in Plants:** Bifenthrin is not absorbed by foliage or translocated throughout plants.

Benefits

- Outstanding efficacy – On adults of several species (an Adulticide) and larvae of Lepidoptera species
- Long-term residual control – limits the number of pesticide applications
- A liquid formulation (suspension concentrate) – suitable for easy application and safe for use in warmer conditions (low phytotoxicity)
- An odourless product, rainfast once dry and not degraded by sunlight – ideal for application in most situations
- Suitable for use on broad-acre turf areas such as turf farms, sporting fields, parks, ovals and fairways
- Proven performance
- Broad spectrum control
- Strong residual activity
- Reliable, high quality aqueous concentrate formulation
- The odourless, liquid formulation is specifically designed for turf managers to achieve uniform distribution across the turf surface to enhance the degree of insect control. In addition, the suspension concentrate formulation contains no harsh solvents.

Packaging

Pack size: 2.5L



How to get the most out of your application for TURF

- For thatch inhabiting insects, it is advised to use a quality Soil Penetrant Wetting Agent in conjunction with Ceasefire 200 SC Insecticide.
- Ceasefire 200 SC Insecticide has a unique ability to control the adults of the Scarab beetles and Weevil pests of turf. These include the major pests of turf such as African Black Beetle (*Heteronychus arator*) and Billbug (*Sphenophorus brunneipennis*). Using Ceasefire 200 SC Insecticide in conjunction with a larvicide such as Columbus Insecticide or Tirem 200 SC Insecticide is recommended to control all stages of the insect's life cycle. Any application combining these products will control the current population and their residual nature will prevent further insect infestations.
- Ceasefire 200 SC Insecticide controls the adults of Argentine Stem Weevil adults (*Listronotus bonariensis*) in turf. Using Ceasefire 200 SC Insecticide in conjunction with a larvicide such as Monarch 100 Insecticide is recommended to control all stages of the insect's life cycle. This combination will control the current population and their residual nature will prevent further insect infestations.

Restraints

DO NOT use this product at less than indicated label rates.

DO NOT apply to soils if excessively wet or immediately after heavy rain to avoid run-off of the chemical.

DO NOT use in cavity walls (except via certified cavity infill reticulation systems or for direct treatment of the nest).

Application

Application (Turf)

To ensure even application and optimum control, apply in a minimum spray volume of 200 L of water per hectare and then irrigate with up to 4 mm of water soon after application. High spray volumes can be used when the insecticide needs to be incorporated into the turf thatch and upper soil.

Inspect treated areas for continuing activity. Re-apply as required.

Apply after mowing to minimise loss of insecticide in clippings.

Residual Pest Control in Turf

Ceasefire 200 SC Insecticide has extended residual activity that controls target insects via contact and ingestion for up to 8 weeks (depending on soil type). The residual nature permits pest control over longer periods when compared to traditional insecticides, this long-term residual control limits the number of pesticide applications required.

Insect Management

1) TURF

Situation	Pest	Rate	Critical Comments
Turf (for example: lawns, commercial turf farms, parks, recreational areas, bowling greens, sports fields)	Lawn armyworm (<i>Spodoptera maurita</i>), Sod webworm (<i>Herpetogramma licarsisalis</i>)	600 mL per ha (6 mL per 100 m ²)	Mix Ceasefire 200 SC Insecticide in water and apply evenly over the area to be treated using spray application equipment. Use a minimum spray volume of at least 200 L per ha (2 L per 100 m ²). To ensure optimum control irrigate the treated area with up to 4 mm water soon after application. Inspect treated areas for continuing activity. Re-apply as required. Where a rate range is indicated use lower rates under lower insect pressure and higher rates under higher insect pressure. Apply after mowing to minimise loss of insecticide in clippings.
	Argentine Stem Weevil adults (<i>Listronotus bonariensis</i>)	600 mL - 1.2 L per ha (6 - 12 mL per 100 m ²)	
	African Black Beetle adults (<i>Heteronychus arator</i>)	600 mL - 1.8 L per ha (6 - 18 mL per 100 m ²)	
	Billbug adults (<i>Senophorus</i> sp)	600 mL - 1.2 L per ha (6 - 12 mL per 100 m ²)	
	Black ant, Coastal Brown ant, Funnel ant, Sugar ant	600 mL - 2.2 L per ha (6 - 22 mL per 100 m ²)	Mix Ceasefire 200 SC Insecticide in water and apply over the area to be treated using spray application equipment. Apply to areas where ants are active. Where possible spray directly into the nests. Use the low rate for maintenance treatments or to control light infestations and the high rate for heavy infestations and for maximum residual control. The elimination of Funnels ants from a particular site will generally require more than 1 application. Initial applications should be broadcast over the affected areas. As the initial numbers of active colonies is reduced, application should shift to targeting active mounds. Apply spray directly to the mound and in the area immediately surrounding active mounds (300 mm radius).

Note: The above table represents only a modified extract from the full registered label. Always read the full product label before use.

2) ORNAMENTALS

Crop	Pest	Rate	Critical Comments
Roses, Carnations and Ornamental plants	Two-spotted mite (<i>Tetranychus urticae</i>)	14 or 20 mL per 100L	Apply at the first sign of pest infestation and before pest populations build up to damaging levels. Repeat as necessary on a 10 to 14 day interval. Best results are obtained from preventative rather than curative applications. Where indicated use the higher rate for knockdown of established pest infestations or when longer residual activity is required. Spray to run-off using a spray volume of 1000 to 1500 L per ha (10 to 15 litres per 100 m ²) covering both leaf surfaces.
	Aphids	10 mL per 100 L	
	Caterpillars and Loopers including Heliothis (Corn Ear-worm, Native Budworm) <i>Helicoverpa spp.</i> , Light Brown Apple Moth (<i>Epiphyas postvittana</i>), Geranium Plume Moth (<i>Sphenarches anisodactylus</i>)	10 mL per 100 L	Apply at the first sign of pest infestation and before pest populations build up to damaging levels. Repeat as necessary on a 10 to 14 day interval. Best results are obtained from preventative rather than curative applications. Spray to run-off using a spray volume of 10 to 15 litres per 100 m ² covering both leaf surfaces.
	Whitefly (<i>Trialeurodes vaporariorum</i>), Ponsettia White Fly (<i>Bemisia tabaci</i> Biotype B)	10 – 40 mL per 100L	Apply at first sign of pest activity and repeat at 7 to 10 day intervals, while pest pressure exists. More than three sprays may be required to control an existing infestation. Spray to run-off covering both leaf surfaces. Use the higher rate when pest pressure is high. When conditions favour pest development or when increased residual protection is required.
	Mealy Bug (<i>Pseudococcus longispinus</i>)	10 mL per 100L	Apply at first sign of pest activity and repeat at 7 to 10 day intervals, while pest pressure exists. Spray to run-off covering both leaf surfaces.
	Plague Thrips (<i>Thrips imagines, Thrips simplex, Thrips hawaiiensis</i>)	10 mL per 100L	Apply at the first sign of pest activity and repeat at 7 to 10 day intervals while pest pressure exists. Ensure that flowers and buds are sprayed. Spray to run-off covering both leaf surfaces. When buds are opening rapidly, and pest pressure is high reducing the spray interval to 3 to 4 days will give better results. Monitor the population by regular inspection.
	Cutworm (<i>Agrotis spp.</i>) in beds, containers and pots	600 mL per ha (6 mL per 100 m ²)	Spray evenly over the areas to be treated. After application apply approximately 5 mm of sprinkler irrigation.
10 mL per 100L		Apply as a drench at the rate of 2 litres of prepared spray per metre of pot area.	

3) URBAN USES

Situation	Pest	Rate	Critical Comments
Internal and external areas & surrounds of Domestic, Commercial, Public and Industrial Buildings & Structures.	Spiders	12 - 26 mL per 10 L	Use the higher rate in situations where pest pressure is high, when rapid knockdown and/or maximum residual protection is desired. Pay particular attention to dark areas such as cracks and crevices, under floors, eaves and other known hiding or resting-places. For crack and crevice treatments use an appropriate solid stream nozzle. As a surface spray; apply as a coarse, low-pressure spray to areas where spiders hide, frequent and rest. Spray to the point of run-off using around 5 L of spray per 100 m ² ensuring thorough coverage of the treated surfaces. For maximum spider protection use a two-part treatment. 1. Treatment of cracks and crevices. 2. Overall surface spray.
	Papernest wasps	26 mL per 10 L	Apply prepared emulsion to the point of run-off directly to the Papernest ensuring thorough and even coverage. When all adult wasps have been knocked down the nest may be safely removed from the structure.
	Ants (excluding Red Imported Fire Ants), cockroaches, mosquitoes, fleas, flies, ticks (excluding the paralysis tick <i>Ixodes holocyclus</i>) - (Adults & Nymphs)	26 - 50mL per 10 L	On non-porous surfaces apply as a coarse spray at the rate of 1 L of emulsion per 20 m ² . When treating non-porous surfaces do not exceed the point of run-off. On porous surfaces or for use through power equipment, spray at the rate of 1 L of emulsion per 10 m ² . When treating porous surfaces do not exceed the point of run-off. Use the higher rate in situations where pest pressure is high, when rapid knockdown and/or maximum residual protection is desired. The lower rate may be used for follow-up treatments. To control ants apply to trails and nests. Repeat as necessary. To control fleas and ticks apply prepared emulsion to outside surfaces of buildings and surrounds including but not limited to foundations, verandahs, window frames, eaves, patios, garages, pet housing, soil, turf, trunks of woody ornamentals or other areas where pests congregate or have been seen. To control flies and mosquitoes apply prepared emulsion to surfaces where insects rest or harbour. Reapply as necessary. For perimeter treatments apply the prepared emulsion to a band of soil or vegetation 2 to 3 metres wide around and adjacent to the structure. Also treat the foundation of the structure to a height of approximately 1 metre. Use a spray volume of 5 to 10 L per 100 m ² . Higher volumes of water may be needed if organic matter is present or foliage is dense.

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