

**READ SAFETY DIRECTIONS BEFORE OPENING OR USING**

# **CropSure Solace 600SC Insecticide**

**ACTIVE CONSTITUENT: 600 g/L CHLORANTRANILIPROLE**

<b>GROUP</b>	<b>28</b>	<b>INSECTICIDE</b>
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For the control of Lepidopteran species of insect pests in Cotton and Pulse crops, as per the Directions for Use.

**IMPORTANT: READ THE ATTACHED LEAFLET BEFORE OPENING OR USING THIS PRODUCT**

Contents: 1 L - 200 L

**CropSure Pty Ltd**  
18 Raymond Road  
Laverton North  
Victoria 3026  
ABN: 17 643 829 190  
ACN: 643 829 190  
Phone: 03 9931 2200  
[www.cropsure.com](http://www.cropsure.com)

**STORAGE AND DISPOSAL****KEEP OUT OF REACH OF CHILDREN**

Store in the closed, original container in a dry, well-ventilated area, as cool as possible out of direct sunlight.

Triple rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

**SAFETY DIRECTIONS**

May irritate eyes, avoid contact with eyes. When using together with other products, consult their label safety directions. Wash hands after use.

**FIRST AID**

First aid is not generally required. If in doubt, contact a Poisons Information Centre (phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

**SAFETY DATA SHEET (SDS)**

Additional information is listed in the Safety Data sheet, which is available from the supplier.

**CONDITIONS OF SALE**

CropSure Pty Ltd shall not be liable for any loss, injury, damage or death whether consequential or otherwise, whatsoever or whosoever arising whether through negligence or otherwise, in connection with the sale, supply, use or application of this product, except for any provisions or rights under the Australian Consumer Law which cannot be excluded. The supply of this product is on the express condition that the purchaser does not rely on CropSure Pty Ltd skill of judgement in the purchasing or using the same and every person using this product does so at their own risk absolutely. The Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions. This product is designed to be only used according with the label directions.

IN A TRANSPORT EMERGENCY  
**DIAL 000**  
POLICE OR FIRE BRIGADE

**24HR Medical Emergency Information:**  
**Australia +61 1800 951 288**  
**New Zealand +64 800 700 112**

APVMA APPROVAL NO: 95308/145233

BATCH NO:

DATE OF MANUFACTURE:

Very toxic to aquatic life with long lasting effects. Do not get in eyes, on skin, or on clothing. Avoid release to the environment. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. In case of fire: Use carbon dioxide, dry chemical, foam, water fog, to extinguish. Protect from sunlight. Store in a dry place. Store in a closed container. Store in a well-ventilated place. Keep cool. Dispose of contents and containers as specified on the registered label.

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## DIRECTIONS FOR USE

### RESTRAINTS:

**DO NOT** apply if heavy dew is present on crops, or if rainfall is expected within 2 hours of application.

**DO NOT** make more than 3 applications per Cotton crop per season, and no more than 2 consecutive sprays per field per season.

**DO NOT** make more than 2 applications per Pulse crops per season. Applications must be a minimum of 7 days apart.

### SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at

[www.apvma.gov.au/spraydrift](http://www.apvma.gov.au/spraydrift)

**DO NOT** allow bystanders to come into contact with the spray cloud.

**DO NOT** apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The buffer zones in the relevant buffer zone table/s below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

**DO NOT** apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.

**DO NOT** apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.

**DO NOT** apply by a boom sprayer unless the following requirements are met:

- spray droplets not smaller than a **MEDIUM** spray droplet size category
- minimum distances between the application site and downwind sensitive areas (see 'Mandatory buffer zones' in table 1) are observed.

### Buffer Zones for Boom Sprayers

**Table 1:** Mandatory Buffer Zone for protection of the aquatic environment

Application Rate	Mandatory Downwind Buffer Zone
Up to 90 mL/ha	20 metres

**DO NOT** apply by aircraft unless the following requirements are met:

- spray droplets not smaller than a **MEDIUM** spray droplet size category
- for release heights 25% of wingspan or 25% of rotor diameter or lower above the target canopy, minimum distances between the application site and downwind sensitive areas (see 'Mandatory buffer zones' in table 2) are observed.

**Buffer Zones for Aircraft****Table 2:** Mandatory Buffer Zone for protection of the aquatic environment

Application Rate	Wind speed conditions	Mandatory Downwind Buffer Zone
Up to 90 mL/ha	3 - 8 km/h	100 metres
	8 - 14 km/h	200 metres
	15 - 20 km/h	400 metres

For use in all States where appropriate for the crop and/or insect pest.

CROP	PEST	RATE/HA	WHP	CRITICAL COMMENTS
Cotton	Cotton bollworm ( <i>Helicoverpa armigera</i> ), Native budworm ( <i>Helicoverpa punctigera</i> ), Cluster caterpillar ( <i>Spodoptera litura</i> )	55 or 90 mL + non ionic surfactant @ 125 gai/100L	28 days	Target brown eggs and hatchling (neonates or 1st instar) to small larvae (2nd instar) when they reach the economic spray threshold and before they become entrenched in squares, flowers and bolls.  Use the <b>low</b> rate on <b>threshold larvae pressure</b> (2 larvae per metre row) and low egg pressure. Use the <b>high</b> rate with high egg and/or larvae pressure (where potential for >2 larvae per metre row produced) and so as to achieve longer residual control of <i>Helicoverpa</i> spp.
	Northern rough bollworm ( <i>Earias vittella</i> ) Rough bollworm ( <i>Earias huegeliana</i> )	90 mL + non ionic surfactant @ 125 gai/100 L		Target eggs and hatchling (neonates or 1st instar) to small larvae (2nd instar) when they reach the economic spray threshold and before they become entrenched in terminals or bolls.
Chickpea	Cotton bollworm ( <i>Helicoverpa armigera</i> ) Native budworm ( <i>Helicoverpa punctigera</i> )	40 mL + non-ionic surfactant @ 125 gai/100 L	14 days	A maximum of two applications are to be applied to any one crop per season. Further treatments should be made with alternative mode of action insecticides.  Regularly scout crops to monitor for larvae. Target sprays against larvae. Apply as larvae reach threshold numbers. Larvae in entrenched feeding sites will not be controlled.  Use enough water to ensure thorough coverage of the crop. Target a minimum of 100 L/ha by ground rig and a minimum of 30 L/ha by aircraft.  Use in accordance with Crop Life Insecticide Resistance Management Strategy guidelines. Target brown eggs and hatchlings (neonates or first instar) to small larvae (second instar) when they reach the economic spray threshold and before they become entrenched in flowers or pods.
Mung bean, Soybean	Bean podborer ( <i>Maruca vitrata</i> ), Cotton bollworm ( <i>Helicoverpa armigera</i> ), Native budworm ( <i>Helicoverpa punctigera</i> ), Soybean looper ( <i>Thysanoplusia orichalcea</i> ), Bean looper ( <i>Mocis alterna</i> ), Irrorated tabby ( <i>Anticarsia irrorata</i> )			
Winter pulse crops (except Chickpea) including; Faba/ Broad bean, Field pea, Lentil, Lupin, Vetch	Cotton bollworm ( <i>Helicoverpa armigera</i> ), Native budworm ( <i>Helicoverpa punctigera</i> )			
Summer pulse crops (except Mung bean and Soybean) including; Azuki/Adzuki bean, Cow pea, Navy bean, Pigeon pea	Bean podborer ( <i>Maruca vitrata</i> ), Cotton bollworm ( <i>Helicoverpa armigera</i> ), Native budworm ( <i>Helicoverpa punctigera</i> ), Soybean looper ( <i>Thysanoplusia orichalcea</i> ), Bean looper ( <i>Mocis alterna</i> ), Irrorated tabby ( <i>Anticarsia irrorata</i> )			

**NOT TO BE USED FOR ANY PURPOSE OR IN ANY MANNER CONTRARY TO THIS LABEL  
UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION**

**WITHHOLDING PERIODS**

**HARVEST**

**Cotton:** DO NOT HARVEST FOR 28 DAYS AFTER APPLICATION.  
**Pulse Crops:** DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.

**GRAZING**

**Cotton:** DO NOT ALLOW LIVESTOCK TO GRAZE CROPS, COTTON  
STUBBLE OR GIN TRASH TREATED WITH CROPSURE SOLACE  
600SC INSECTICIDE  
**Pulse Crops:** DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS  
AFTER APPLICATION.

**GENERAL INSTRUCTIONS**

CropSure Solace 600SC Insecticide is an anthranilic diamide insecticide in the form of a suspension concentrate. CropSure Solace 600SC Insecticide is particularly active on Lepidopteran insect pests, primarily as a larvicide.

CropSure Solace 600SC Insecticide should be applied after careful field monitoring of pest populations of eggs and larvae to determine the need for application, the correct timing of the initial application and of any subsequent applications. Subsequent applications are dependent on economic thresholds, as well as the growth rate of new unprotected plant material.

For *Helicoverpa* species, spray applications should be timed to coincide with egg hatching and before larvae are entrenched in protected feeding sites.

CropSure Solace 600SC Insecticide has been specifically designed for use in Integrated Pest Management (IPM) schemes. CropSure Solace 600SC Insecticide does not give traditional larval “knockdown” control. CropSure Solace 600SC Insecticide enters larvae primarily by ingestion of treated foliage, or through penetration of the insect cuticle. **After ingesting CropSure Solace 600SC Insecticide, the larvae cease feeding and die four to five days later.** CropSure Solace 600SC Insecticide provides square, flower and boll protection in cotton, and flower and pod protection in pulse crops.

**EXPORT STATEMENT**

Import tolerances for produce treated with CropSure Solace 600SC Insecticide may be pending in some countries. Consult with your exporter or CropSure Pty Ltd representative before applying CropSure Solace 600SC Insecticide to export crops.

## INSECTICIDE RESISTANCE WARNING

GROUP	28	INSECTICIDE
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For insecticide resistance management CropSure Solace 600SC Insecticide is a Group 28 insecticide. Some naturally occurring insect biotypes resistant to CropSure Solace 600SC Insecticide and other Group 28 insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if CropSure Solace 600SC Insecticide and other Group 28 insecticides are used repeatedly. The effectiveness of CropSure Solace 600SC Insecticide on resistant individuals could be significantly reduced. Since the occurrence of resistant individuals is difficult to detect prior to use CropSure Pty Ltd accepts no liability for any losses that may result from the failure of CropSure Solace 600SC Insecticide to control resistant insects.

Strategies to minimise the risk of insecticide resistance are available. To help prevent the development of resistance to CropSure Solace 600SC Insecticide observe the following instructions.

- Use CropSure Solace 600SC Insecticide in accordance with the current Insecticide Resistance Management (IRM) strategy for your region.
- Apply CropSure Solace 600SC Insecticide or other Group 28 insecticides using a “window” approach to avoid exposure of consecutive insect pest generations to the same mode of action. Multiple successive applications of CropSure Solace 600SC Insecticide or other Group 28 insecticides are acceptable if they are used to treat a single insect generation.
- Following a “window” of CropSure Solace 600SC Insecticide or other Group 28 insecticides, rotate to a “window” of applications of effective insecticides with a different mode of action.
- The total exposure period of all “Group 28-active windows” applied throughout the crop cycle (from seedling to harvest) should not exceed 50% of the crop cycle.
- Incorporate IPM techniques into the overall pest management program.
- Monitor insect populations for loss of field efficacy.
- Cultivate all cotton and pulse crop fields as soon as possible after picking/harvest to destroy over-wintering pupae of *Helicoverpa armigera*.

For further information contact your farm chemical supplier, consultant, local Department of Agriculture or Primary Industries, or local CropSure Pty Ltd Representative. For additional information on insect resistance, modes of action and monitoring visit the Insecticide Resistance Action Committee (IRAC) on the web at <http://www.irac-online.org>

## MIXING

Fill spray tank to ¼ to ½ full of water. Measure the amount of CropSure Solace 600SC Insecticide required for the area to be sprayed. Add CropSure Solace 600SC Insecticide directly to the spray tank with the agitation engaged. Mix thoroughly to disperse the insecticide. Once dispersed, the material must be kept in suspension at all times by continuous agitation. Use mechanical or hydraulic means, **DO NOT** use air agitation, premix or slurry.

If spray solution is left standing, ensure thorough re-agitation of the spray mix until fully resuspended. **DO NOT** allow spray mix to sit overnight, as resuspension may be difficult.

## SURFACTANT/WETTING AGENT

Use a non-ionic surfactant/wetting agent at 125 g active/100 L, (e.g. BS1000\* @ 125 mL/100 L).

DO NOT add a non-ionic surfactant/wetting agent if:

- mixing with another product which already contains a surfactant and/or the product label advises not to add a surfactant.



- mixing with a liquid fertiliser

## COMPATIBILITY

CropSure Solace 600SC Insecticide is compatible with many commonly used fungicides, liquid fertilisers, herbicides, insecticides, and biological control products. However, since the formulations of products are always changing, it is advisable to test the physical compatibility of desired tank mixes and check for adverse effects like settling out or flocculation.

To determine the physical compatibility, add the recommended proportions of the tank mix products to water, mix thoroughly and allow to stand for 20 minutes. If the combination remains mixed, or can be re-mixed readily, it is considered physically compatible. Avoid complex tank mixtures of several products or very concentrated spray mixtures.

The crop safety of all potential tank-mixes, including additives and other pesticides, on all crops under all environmental conditions has not been fully tested. Before applying any tank-mixture not specifically recommended on this label or other CropSure supplemental labelling, the safety to the target crop must be confirmed. To test for crop safety, apply the combination to a small area of the target crop in accordance with the label instructions to ensure that a phytotoxic response will not occur.

CropSure Solace 600SC Insecticide is compatible with amitraz and mepiquat chloride. CropSure Solace 600SC Insecticide is not compatible with Ultra Low Volume (ULV) formulations.

**The mixing sequence recommended is:** water soluble bags, dry flowable or water dispersible granules, wettable powders, water-based suspension concentrates (CropSure Solace 600SC Insecticide), water-soluble concentrates, suspo-emulsions, oil based suspension concentrates, emulsifiable concentrates, adjuvants and surfactants, soluble fertilisers and drift retardants.

## APPLICATION

Application equipment should be calibrated to apply at least sixty (60) droplets per cm<sup>2</sup> of target foliage. Droplet VMD should be of MEDIUM spray quality.

### Ground application

Apply as a blanket spray or as a banded spray. Ensure thorough spray coverage on the foliage, using appropriate fan nozzles. Apply in a minimum spray volume of 100 L/ha and keep the boom low to avoid spray drift. A minimum spray pressure of 275 kPa (40 psi) should be used with fan nozzles applying insecticides. **Higher pressure reduces droplet size, DOES NOT improve canopy penetration and may increase drift potential.** WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE. For band spraying, increase the number of fan nozzles per crop row as the plant size increases.

### Aerial application

CropSure Solace 600SC Insecticide must only be applied with aircraft fitted with accurately calibrated equipment. Apply a minimum total spray volume of 30 L/ha with nozzles (e.g. Micronaire rotary atomisers, CP nozzles or conventional hydraulic nozzles) capable of producing medium spray quality droplets. A spray drift minimisation strategy, should be employed at all times when applying this product. **DO NOT apply CropSure Solace 600SC Insecticide using Ultra Low Volume (ULV) methods.**

### Minimising Spray Drift

The most effective drift management strategy is to apply the largest droplets which are consistent with pest control objectives. Coarser droplet size spectra have larger volume mean diameters (VMD's) and lower drift potential.

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator must consider all these factors when making application decisions.

Refer to the Spray Drift Restraints.

## **Spray Equipment Cleanout**

Prior to application, start with clean, well-maintained application equipment. Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove. Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom, and nozzles with clean water. Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. **DO NOT** clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

## **PRECAUTION**

**DO NOT** use human flaggers/markers unless they are protected by engineering controls such as vehicles with enclosed cabs.

## **PROTECTION OF CROPS, NATIVE AND OTHER NONTARGET PLANTS:**

**DO NOT** apply under weather conditions, or from spraying equipment, that may cause spray to drift onto near-by nontarget plants/crops, cropping lands or pastures.

**IMPORTANT:** Not all crops within a crop group, and not all varieties, cultivars or hybrids of crops, have been individually tested for crop safety. To test for crop safety, apply the product in accordance with the label instructions to a small area of the target crop to ensure that a phytotoxic response will not occur, especially where the application is a new use of the product by the applicator.

## **PROTECTION OF HONEY BEES AND OTHER INSECT POLLINATORS**

Based on Good Agricultural Practices (GAP), CropSure Solace 600SC Insecticide should not be applied when bees are actively foraging.

## **PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT**

Dangerous to aquatic invertebrates. Drift and run off from treated areas may be hazardous to aquatic organisms in neighbouring areas. **DO NOT** contaminate streams, rivers or waterways with the chemical or used containers.

## **STORAGE AND DISPOSAL**

### **KEEP OUT OF REACH OF CHILDREN**

Store in the closed, original container in a dry, well-ventilated area, as cool as possible out of direct sunlight.

Triple rinse containers before disposal. Add rinsings to spray tank. **DO NOT** dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. **DO NOT** burn empty containers or product.

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