POISON
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

SENATOR® 350 SC
INSECTICIDE

ACTIVE CONSTITUENT: 350 g/L IMIDACLOPRID

GROUP 4A INSECTICIDE

A soil applied treatment for the control of greyback and Childers canegrub in sugarcane and silverleaf whitefly in various vegetable crops as specified in the Directions for Use table.

CONTENTS: 1L, 5L and 10L

Crop Care Australasia Pty Ltd, Unit 15/16 Metroplex Avenue, Murarrie Qld 4172
**DIRECTIONS FOR USE**

**RESTRAINTS**
DO NOT use on crops produced hydroponically or in glasshouses and other covered situations.
DO NOT apply Senator 200 SC or any other Group 4A Insecticide as a foliar spray after soil application of SENATOR 350 SC in that crop.
DO NOT apply more than one soil application of SENATOR 350 SC per crop for vegetables or per plant crop or ratoon crop for sugarcane.

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| Sugarcane  | Greyback canegrub (Dermolepida albohirtum) | 16-22 mL per 100 metres of cane row (equivalent to 1.05-1.44 L/ha for single row cane with 1.52 m spacing between rows) | **PLANT CANE APPLICATION**
Apply between June and November according to the stage of the crop and application timing to achieve the minimum soil cover of 10cm when the drill is filled in. DO NOT apply later than November.

Use the higher rate to maintain the yield potential of sugarcane crops when heavy greyback canegrub infestation (greater than 4 grubs/stool) is expected.

Apply to the soil surface in a band 15-20cm wide at the first working or drill fill-in stage of plant cane. Application at first working is advised where shallower planting (15-20cm) is practiced to ensure a minimum of 10cm of soil cover is achieved at drill fill-in. Application should be made before cane shoots reach a stage that will prevent most of the spray reaching the soil surface. (Refer to Application Directions under General Instructions)

DO NOT leave SENATOR 350 SC exposed to sunlight. During application or immediately afterwards, cover the treated soil band with at least 5cm of compacted soil or 10cm of loose soil. Bring in further soil cover as cane growth allows.

DO NOT apply more than once per season.

**RATOON CANE APPLICATION**
Apply from September to November to fields which are at high risk of greyback grub damage.

In areas where early flights of beetles occur, application should be early within this period. Late applications where large 3rd instar larvae dominate the grub population will not be as effective. Application should be made while stools are small enough to avoid excessive damage.

Use the high rate when high grub populations are expected, e.g. an average greater than 4 grubs per stool.

Apply only as a subsurface soil application behind coulters (refer to Application directions under GENERAL INSTRUCTIONS). Soil should have moisture at coulter depth at the time of application or should receive at least 15 mm of rainfall or irrigation within 1 week.

DO NOT leave SENATOR 350 SC exposed to sunlight. After application ensure the SENATOR 350 SC treated band is covered by at least 100 mm of soil and that coulter slits are filled in completely.

DO NOT apply more than once per season.
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<td>Childers canegrub (<em>Antitrogus parvulus</em>)</td>
<td>11 - 16 mL per 100 metres of cane row (equivalent to 0.72 - 1.05 L/ha for single row cane with 1.52 m spacing between rows)</td>
<td><strong>RATOON CANE APPLICATION ONLY</strong>&lt;br&gt;Apply from September to November.&lt;br&gt;Check for the presence of grubs from September onwards. Apply SENATOR 350 SC when grub numbers reach an economic threshold (about 3 grubs per stool).&lt;br&gt;Use the high rate when grub populations are high, e.g. an average greater than 5 grubs per stool or if application is late (damage already visible).&lt;br&gt;Apply only as a subsurface soil application behind coulters (refer to <em>Application</em> directions under <strong>GENERAL INSTRUCTIONS</strong>). Soil should have moisture at coulter depth at the time of application or should receive at least 15 mm of rainfall or irrigation within 1 week.&lt;br&gt;DO NOT leave SENATOR 350 SC exposed to sunlight. After application ensure the SENATOR 350 SC treated band is covered by at least 100 mm of soil and that coulter slits are filled in completely.&lt;br&gt;DO NOT apply more than once per season.</td>
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<tr>
<td>Capsicum</td>
<td>Silverleaf whitefly, including type B</td>
<td>14 mL/100 metres of row</td>
<td><strong>Sub-surface trickle irrigation injection</strong>&lt;br&gt;Apply once only 5 - 7 days after planting out (or 5 - 7 days from seed emergence if planted from seed). Begin injection only after water has reached the furthest drip points and soil is partially wetted up. After SENATOR 350 SC injection is completed, continue irrigation only until lines are flushed, not longer than 1 hour. DO NOT apply SENATOR 350 SC using surface trickle irrigation or any other type of above ground irrigation system. Subsequent irrigations should occur only when soil moisture measurements indicate the need for addition of water. Do not over irrigate or cause runoff. In situations where root development in the crop is slow, evidence of control may be delayed.</td>
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<tr>
<td>Cucurbits</td>
<td>14 mL/100 metres of row (Mix with water, using at least 2 litres of spray mixture per 100 m of row)</td>
<td><strong>Furrow spray pre-plant</strong>&lt;br&gt;Apply to open furrow not earlier than 5 days prior to planting as a narrow band of spray centred under the plant row. Do not leave SENATOR 350 SC exposed to sunlight. Sprayed soil should be covered immediately. After final shaping of the planting bed, the treated layer of soil should be approximately 100 mm below the soil surface. At planting, steps should be taken to ensure workers do not contact treated soil.</td>
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<tr>
<td>Eggplant</td>
<td>14 mL/100 metres of row (Mix with sufficient water to allow a constant volume of at least 50 mL of drench mixture per plant)</td>
<td><strong>Plant hole drench</strong>&lt;br&gt;DO NOT apply SENATOR 350 SC by this method where plant spacing along the row exceeds 60 cm. Apply the selected volume of drench mixture in the planting hole at planting or within 2 days after planting. Steps should be taken to ensure workers do not contact treated soil or drench mixture.</td>
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<tr>
<td>Sweet potato</td>
<td>14 mL/100 metres of row</td>
<td><strong>NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION</strong></td>
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WITHOLDING PERIODS

Harvest:
NOT REQUIRED WHEN USED AS DIRECTED

Grazing:
Sugarcane - DO NOT GRAZE OR CUT FOR STOCKFEED FOR 21 WEEKS AFTER APPLICATION

GENERAL INSTRUCTIONS

Insecticide Resistance Warning

For insecticide resistance management, SENATOR 350 SC Insecticide is a Group 4A insecticide. Some naturally occurring insect biotypes resistant to SENATOR 350 SC and other Group 4A insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if SENATOR 350 SC or other Group 4A insecticides are used repeatedly. The effectiveness of SENATOR 350 SC on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, Crop Care Australasia Pty Ltd accepts no liability for any losses that may result from the failure of SENATOR 350 SC to control resistant insects. SENATOR 350 SC may be subject to specific resistance management strategies. For further information contact your local supplier, Crop Care Australasia Pty Ltd representative or local agricultural department agronomist.

Resistance Management Strategy (vegetables)

Do not apply more than one soil application of SENATOR 350 SC to each crop. Do not use SENATOR 200 SC or any other Group 4A insecticide as a foliar spray after soil application of SENATOR 350 SC in that crop. Refer to district advice for local silverleaf whitefly resistance management strategies.

Export of Treated Produce

Growers should note that MRLs or import tolerances do not exist in all markets for produce treated with SENATOR 350 SC. If you are growing produce for export, please check with Crop Care Australasia Pty Ltd for the latest information on MRLs and import tolerances before using SENATOR 350 SC.

Note for Vegetable Crops: potential migration of silverleaf whitefly from neighbouring crops

Adult silverleaf whitefly (SLWF) are controlled when they ingest a lethal dose of active ingredient by feeding on a SENATOR 350 SC treated crop. However, in some very susceptible crops and varieties, the migration of large populations of adults from adjacent fields may result in significant feeding damage to the crop, although further reproduction and development of the pest will be prevented. To help prevent such damage it is important to minimise the migration of adult SLWF into a treated crop, e.g. by applying a 'clean-up' fast-acting insecticide to recently harvested crops. Consideration of factors such as planting sequences and timing, wind direction, variety selection, and general crop hygiene should also be integral to SLWF management. Crops should also be monitored for SLWF adult numbers after application of SENATOR 350 SC, and appropriate fast acting insecticides for control of adults should be applied if economic thresholds are reached or excessive adult feeding damage is observed.

Mixing

Prior to pouring, shake container vigorously, then add the required quantity of SENATOR 350 SC to water in the tank while stirring or with agitators in motion. SENATOR 350 SC requires constant agitation in the tank.

Application (sugarcane)

Immediately following application, Senator 350SC must be covered by at least 5cm of soil and there should be at least 10cm of soil cover over the treated layer after the final hilling-up operation. Apply in no less than 1.5 litres of water per 100 metres of cane row (equivalent to no less than 100 L/ha of water for single row cane with 1.52 m spacing between rows). Senator 350 SC is registered for use in both plant and ratoon cane for Greyback canegrub control, but only in ratoon cane for Childers canegrub control.
**Greyback canegrub – Plant Cane**
Apply as a soil surface application at the base of the drill in a band 15-20cm wide at first working or the drill fill-in stage of plant cane. Application at first working is advised where shallower planting (15-20cm) is practiced to ensure a minimum of 10cm of soil cover is achieved at drill fill-in. Apply through 2 flat fan nozzles, each delivering a minimum water volume of 1.5 litres of spray mixture per 100m of cane row (equivalent to no less than 200L/ha of water for single row cane with a 1.52m row spacing). The nozzles should be mounted on either side of the cane row and below the cane leaves, so that little or no interruption to the spray pattern occurs during application. In some cases leaf lifters will assist if cane foliage is “drooping” in the row. The nozzles should be directed so that spray patterns overlap on the soil at the base of cane shoots in the middle of the drill. Ensure following tynes or rakes bring in a minimum of 5cm of covering soil over the spray band.

1. **APPLY INTO THE FURROW - AT FIRST WORKING**  
   (Most suitable where shallower planting (15-20cm) is practiced)

   ![Diagram of application into the furrow at first working](image1)

   - Mound profile after final hilling operation
   - Furrow shape immediately after application

   **Senator 350 SC**

   - 5-15 cm
   - 5 cm
   - 5-10 cm
   - 15-20 cm

2. **APPLY INTO THE FURROW - AT CUTAWAY OR DRILL FILL-IN**

   ![Diagram of application into the furrow at cutaway or drill fill-in](image2)

   - Mound profile after drill fill-in operation

   **Senator 350 SC**

   - 10-15 cm
   - 5-15 cm
   - 15-20 cm
Greyback canegrub – Ratoon Cane

**Twin coulter method:** Apply subsurface behind twin coulters to a depth of 100-125 mm. Coulters should be spaced 220 mm to 500 mm apart, one either side of the centre of the stool. Coulter slits should be in the sides or top of the stool mound rather than at the base. Narrow spacings may not be possible with advanced ratoon growth. DO NOT apply using narrow spacings if ratoon growth is advanced such that excessive crop damage from equipment may result.

**Single coulter method ("stool split"):** Apply subsurface behind a single coulter in the centre of the stool. DO NOT apply using this method if ratoon growth is advanced such that excessive crop damage from equipment may result. This method is not suitable for all areas. Before using this method, consult your local Crop Care Australasia Pty Ltd representative.

Childers canegrub – Ratoon cane

**Twin coulter method:** Apply subsurface behind twin coulters to a depth of 100-125 mm. Coulters should be spaced 220 to 350 mm apart, with one coulter on either side of the centre of the stool.

Application (vegetables)
Refer to instructions in Critical Comments for each application method.

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

DO NOT contaminate streams, rivers or waterways with the chemical or used containers. Imidacloprid is toxic to certain aquatic species. Application should be planned to avoid run-off within 48 hours of application. Application should not be made to wet/waterlogged soils. Application is not to be performed if heavy rains are expected to occur within 48 hours. Irrigation run-off from treated areas should be prevented from entering drains and waterways.

Sugarcane: Irrigation should not occur within 48 hours of application.

Vegetables (furrow spray pre-plant and plant hole drench applications): Irrigation within 48 hours of application should be minimal, and sufficient to reduce seedling stress only.

**STORAGE AND DISPOSAL**

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.

Triple or preferably pressure 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 bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

**SAFETY DIRECTIONS**

Harmful if swallowed. Repeated exposure may cause allergic disorders. When preparing product for use, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield. Wash hands after use. After each day's use, wash gloves, face shield and contaminated clothing.

**FIRST AID**

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126.

**MATERIAL SAFETY DATA SHEET**

Additional information is listed in the Material Safety Data Sheet which can be obtained from your supplier or from the Crop Care website: www.cropcare.com.au

**Conditions of sale**

Crop Care Australasia Pty Ltd will not accept any responsibility whatsoever and howsoever arising and whether for consequential loss or otherwise in connection with the supply or use of these goods other than responsibility for the merchantable quality of the goods and such responsibilities mandatorily imposed by Statutes applicable to the sale or supply of these goods. To the extent allowed by such Statutes the liability
of Crop Care Australasia Pty Ltd is limited to the replacement of the goods or (at the option of Crop Care
Australasia Pty Ltd) the refund of the price paid and is conditional upon a claim being made in writing and
where possible sufficient part of the goods to enable proper examination being returned to Crop Care
Australasia Pty Ltd within thirty days of delivery.

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