

POISON

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

SENATOR[®] 700WG

INSECTICIDE

ACTIVE CONSTITUENT: 700g/kg IMIDACLOPRID

GROUP	4A	INSECTICIDE
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For the control of various insect pests of cotton, fruit, vegetables, ornamentals and turf as a foliar spray, as a soil drench in bananas, as a seedling drench in brassicas and lettuce, and as a soil applied treatment for the control of various canegrubs in sugarcane, silverleaf whitefly in vegetable crops and certain pests in apples, citrus and ornamentals as specified in the Directions for Use table.

NET CONTENTS: 0.5-10kg

Crop Care Australasia Pty Ltd, Unit 17/16 Metroplex Avenue, Murarrie QLD 4172

DIRECTIONS FOR USE: All States**Restrictions:**

DO NOT apply as a soil application on crops produced hydroponically or in glasshouses and other covered situations.

DO NOT transplant seedlings treated by seedling drench into hydroponic production systems.

DO NOT apply Senator 700WG or any other Group 4A Insecticide as a foliar spray after soil application of Senator 700WG in that crop.

DO NOT apply more than one soil application of Senator 700WG or any other Group 4A Insecticide per crop for vegetables, per plant or ratoon crop for sugarcane, per season for citrus and per two years for apples.

DO NOT apply more than one application of Senator 700WG or any other Group 4A Insecticide per crop for bananas.

1. FRUIT CROPS

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Apples	Woolly aphid	Chemical control 170g/100L (apply 1L of spray mixture per tree) Beneficial insect plus chemical control (eg <i>Aphelinus mali</i> plus Senator 700WG) 86g/100L (apply 1L of spray mixture per tree)	-	For trees up to 7 years of age. During late summer or autumn, apple trees with woolly aphid colonies or damage should be identified and marked for treatment the following season. At green tip to petal fall, apply 1 litre of the prepared Senator 700WG mixture to moist soil immediately around the base of the tree trunk. Ensure the mixture infiltrates the soil around the trunk and does not run off the soil. Control weeds before application. Do not disturb or remove the soil around the trunk during the season. If aerial colonies are present at application, maximum effectiveness may not be achieved until the following season. Do not treat more than once in any 2 year period.
Bananas (Cavendish)	Banana weevil borer (<i>Cosmopolites sordidus</i>) Greyback canegrub (<i>Dermolepida albohirtum</i>) Rust thrips (<i>Chaetanaphothrips signipennis</i>) (Suppression only)	1.25g/plant	-	Soil drench: Apply as drench of 1.25g of Senator 700WG mixed with water in a total volume of 500mL around each plant or planting bit in the planting process. (This method will provide early control of banana weevil borer and greyback canegrub or suppression of rust thrips in the plant crop). Ensure the drench is covered with at least 5cm of soil.

Citrus	Black citrus aphid Citrus leafminer Pink wax scale Red scale	4.5g/tree Apply as a soil drench* OR via micro-sprinkler* or drip irrigation*	20 weeks (H)	<p>* Refer to Application directions under GENERAL INSTRUCTIONS for detailed information on application methods. Application via micro-sprinkler and drip application methods will give best results when used in conjunction with other control methods such as the release of beneficial species (eg. parasitic wasps). Treatment is only recommended for trees up to 4m in height.</p> <p>Citrus leafminer, Black citrus aphid Apply Senator 700WG in late spring after main flowering has finished (October to December) prior to the summer or autumn flush. Apply prior to pest establishment or at the first signs of pest infestation.</p> <p>Red scale, Pink wax scale Monitor crop throughout late spring to early summer (October to December). If scale is observed, apply Senator 700WG after main flowering has finished and prior to or at the onset of crawler emergence.</p> <p>Multiple flowering and/or overlapping cropping Where extended flowering and/or multiple flowering periods occur eg. lemons and limes, or if the previous seasons crop is still hanging on the tree during or at the end of a new seasons flowering (overlapping cropping) eg. Valencia oranges, Senator 700WG should only be applied:</p> <ul style="list-style-type: none"> • when there is a minimum of 20 weeks to the next harvest and, • according to the timing for specific pests described above and, • after the previous crop has been harvested or stripped and, • when the main flowering period has finished. <p>DO NOT apply more than once per season.</p>
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Citrus (non-bearing only)	Citrus leafminer	3g/tree Apply as a soil drench* OR via drip irrigation*		<p>* Refer to Application directions under GENERAL INSTRUCTIONS for detailed information on application. For application by drip, the emitters should be in close proximity to the base of the tree, to maximize contact with the tree root system and to minimize the opportunity for breakdown of Senator 700WG by UV exposure, otherwise Senator 700WG uptake and hence leafminer control may be reduced.</p> <p>Treatment is only recommended for vegetative (non-bearing) trees.</p> <p>Apply Senator 700WG between late spring to late summer (October to February) prior to a leafminer susceptible growth flush. Apply prior to pest establishment or at the first signs of pest infestation. If longer residual control is desired then follow the recommendation above for the use of the product on citrus at the 4.5g/tree rate.</p> <p>DO NOT leave Senator 700WG exposed to sunlight.</p> <p>DO NOT apply more than once per season.</p>
Stone fruit	Green peach aphid Black peach aphid	<p>Dilute spraying 7g/100L</p> <p>Concentrate spraying Refer to the Mixing/ Application section</p>	21 days	Apply at first sign of aphid infestation. Apply as a full cover spray, ensuring thorough coverage. Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. Do not use in equipment that requires rates greater than 35g/100L of water (ie greater than 5 X concentrate).

2. VEGETABLE CROPS

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Brassicac	Grey cabbage aphid Turnip aphid	7g/100L or 86g/ha	7 days	Apply at first sign of aphid infestation. Add a wetting agent.
Brassicac (Broccoli Brussels sprouts Cabbage Cauliflower Kohlrabi)	Silverleaf whitefly, including type B	Seedling drench 12g/1000 seedlings	-	<p>Green peach aphid, onion thrips: When Senator 700WG is used for the control of Silverleaf whitefly, including type B, control of green peach aphid and onion thrips will also be achieved.</p> <p>Seedling drench (prior to transplanting) Apply to the transplant cell, once only, prior to transplanting.</p> <p>For applications specifically against green peach aphid and onion thrips, select the rate taking into account the likely crop type, crop growing period, the anticipated degree of pest infestation and previous field experience (eg. consideration of crop variety, time of year, predator activity, soil type).</p> <p>Refer to GENERAL INSTRUCTIONS for Seedling Drench Application directions and PRECAUTIONS when handling treated seedlings.</p> <p>Seedling damage may result from Senator 700WG seedling drench treatment particularly if transplanting does not occur soon after treatment. It is recommended that transplanting occur within 24 hours of treatment and that planted seedlings receive sufficient irrigation (preferably using overhead sprinklers) as soon as possible after transplanting to further minimise the risk of seedling damage. This may be particularly relevant under conditions of rapid drying of the transplant cell medium.</p> <p>If watering is required between applications and planting, it should be done sparingly, only as required. DO NOT allow run-through from the cells.</p> <p>When transplanting treated seedlings ensure that the growing medium is fully transferred to the field with each seedling.</p> <p>Seedling production nurseries supplying Senator 700WG treated seedlings must ensure that:</p> <ol style="list-style-type: none"> Supplied batches of seedlings are clearly identified as having been treated with Senator 700WG Insecticide. Paperwork accompanying the seedlings and provided to the recipient indicates the rate of Senator 700WG applied per 1000 seedlings, and the time and date of treatment. Growers accepting delivery of treated
	Green peach aphid Onion thrips	Seedling drench 6-12g/1000 seedlings		

			<p>seedlings have obtained a copy of <i>Senator 700WG seedling drench – instructions for growers</i>, available from Crop Care Australasia Pty Ltd (07 3909 2000 or www.cropcare.com.au)</p> <p>Senator 700WG provides effective management of pest populations. However, Senator 700WG may not provide complete control of pests for the entire growing period in all situations. Crops should be monitored for pests following transplanting and throughout the life of the crop. If pests are observed in the crop additional chemical control may be required, in which case an insecticide with a different mode of action should be used. Refer to GENERAL INSTRUCTIONS for Resistance Management Strategy information.</p>
	Silverleaf whitefly, including type B	Plant hole drench OR Furrow spray 17g/1000 seedlings	<p>Green peach aphid, onion thrips: When Senator 700WG is used for the control of Silverleaf whitefly, including type B, control of green peach aphid and onion thrips will also be achieved.</p> <p>Senator 700WG provides effective management of pest populations. However, Senator 700WG may not provide complete control of pests for the entire growing period. Crops should be monitored for pests following planting and throughout the life of the crop. If pests are observed in the crop additional chemical control may be required, in which case an insecticide with a different mode of action should be used. Refer to GENERAL INSTRUCTIONS for resistance management strategy information.</p> <p>Plant hole drench (at or post-transplanting) Mix Senator 700WG with sufficient water to allow a constant volume of at least 50mL of drench mixture per plant. Apply the selected volume of drench mixture in the planting hole at planting or within 2 days after planting.</p> <p>Furrow spray (prior to planting) Mix Senator 700WG with water, using at least 2 litres of spray mixture per 100m of row. 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 the sprayed band exposed to sunlight; sprayed soil should be covered immediately. After final shaping of the planting bed, the treated layer of soil should be approximately 100mm below the soil surface. This method of application may provide less effective control than seedling drench or plant hole drench application methods.</p>

Capsicum	Green peach aphid	7g/100L or 86g/ha	7 days	Apply at first sign of aphid infestation.
Capsicum Cucurbits Eggplant Sweet potato Tomatoes	Silverleaf whitefly, including type B	7g/100m of row	-	<p>Sub-surface trickle irrigation injection Apply once only 5-7 days after planting out (or 5-7 days from seed emergence if planted from seed). Mix Senator 700WG with sufficient volume of water to enable injection. Begin injection only after water has reached the furthest drip points and soil is partially wetted up. After Senator 700WG injection is completed, continue irrigation only until lines are flushed, not longer than 1 hour. DO NOT apply Senator 700WG 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.</p>
		7g/100m of row (Mix with water, using at least 2 litres of spray mixture per 100m of row)		
Capsicum Eggplant Tomatoes	Silverleaf whitefly, including type B	7g/100m of row (Mix with sufficient water to allow a constant volume of at least 50mL of drench mixture per plant)	-	<p>Plant hole drench DO NOT apply Senator 700WG by this method where plant spacing along the row exceeds 60cm. 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.</p>
Cucumber	Silverleaf whitefly, including type B	7g/100L or 72g/ha	1 day	Apply at first sign of whitefly infestation. Apply dilute sprays (7g/100L) to run-off. Ensure thorough coverage of underside of leaves. Use of droppers will improve coverage of underside of leaves.
Cucurbits	Green peach aphid	7g/100L or 86g/ha	1 day	Apply at first sign of aphid infestation.
	Melon aphid (<i>Aphis gossypii</i>)	72g/ha + Nufarm Pulse® Penetrant at 0.2% v/v (2mL/L water) or Nufarm		

		DuWett® at 200mL/ha		<p>Shorter residual control may be evident and a repeat application of a registered aphicide may be required to achieve complete control:</p> <ul style="list-style-type: none"> • if applications of Senator 700WG plus Pulse or DuWett are timed too late (see above); or • if existing high density aphid colonies (hotspots) are present; or • if aphids have established throughout the plant canopy (especially lower in the canopy); or • if there is high reinfestation pressure; or • if there is rapid crop growth; or • if Senator 700WG plus Pulse or DuWett is used following a spray-failure (eg resistance to organophosphate or carbamate insecticides). Note: Where resistance to carbamates or organophosphates is suspected, Senator 700WG plus Pulse or DuWett should be used first so as not to delay control of the aphids present. <p>Aphids treated with Senator 700WG plus Pulse or DuWett may still be present on the plant but will not be feeding. Control of aphids should initially be assessed by a reduction in fresh honeydew and not on the presence of aphids on the plant. After ingesting Senator 700WG, aphids may take up to 5 days to die.</p>
Eggplant	Green peach aphid	7g/100L or 86g/ha	7 days	Apply at first sign of aphid infestation.
	Melon thrips	7g/100L or 72g/ha		Apply at first sign of melon thrips infestation. Apply dilute sprays (7g/100L) to run off. Ensure thorough coverage of underside of leaves. Use of droppers will improve coverage of underside of leaves.
Head lettuce (planting densities up to 75,000 plants/ha only)	Currant lettuce aphid	Seedling drench 10-16g/1000 seedlings	6 weeks	<p>Seedling drench (prior to transplanting) Apply to the transplant cell, once only, prior to transplanting.</p> <p>Select the rate taking into account the likely crop growing period, the anticipated degree of pest infestation and previous field experience (eg. consideration of lettuce type, variety, time of year, predator activity, soil type). The lower rate will usually be adequate for crops with a short growing period (eg. less than 6-7 weeks), while the higher rate will be necessary for most situations where conditions are highly favourable for aphid infestation and for longer crop growing periods (eg. greater than 6-7 weeks). The lower rate may also be appropriate where control from the Senator 700WG application is not required for the entire crop growing period and where insecticides with alternative modes of action will be used as part of a broader lettuce aphid management strategy during latter stages of crop development.</p>
Lettuce (excluding head lettuce) Chicory Endive Radicchio (planting densities up to 75,000 plants/ha only)			4 weeks	

			<p>Refer to GENERAL INSTRUCTIONS for Seedling Drench Application directions and PRECAUTIONS when handling treated seedlings.</p> <p>Seedling damage may result from Senator 700WG seedling drench treatment particularly if transplanting does not occur soon after treatment. It is recommended that transplanting occur within 24 hours of treatment and that planted seedlings receive sufficient irrigation (preferably using overhead sprinklers) as soon as possible after transplanting to further minimise the risk of seedling damage. This may be particularly relevant under conditions of rapid drying of the transplant cell medium.</p> <p>If watering is required between applications and planting, it should be done sparingly, only as required. DO NOT allow run-through from the cells.</p> <p>When transplanting treated seedlings ensure that the growing medium is fully transferred to the field with each seedling. Seedling production nurseries supplying Senator 700WG treated seedlings must ensure that:</p> <ul style="list-style-type: none"> (a) Supplied batches of seedlings are clearly identified as having been treated with Senator 700WG Insecticide. (b) Paperwork accompanying the seedlings and provided to the recipient indicates the rate of Senator 700WG applied per 1000 seedlings, and the time and date of treatment. (c) Growers accepting delivery of treated seedlings have obtained a copy of <i>Senator 700WG seedling drench – instructions for growers</i>, available from Crop Care Australasia Pty Ltd (07 3909 2000 or www.cropcare.com.au) <p>Senator 700WG provides effective management of pest populations. However, Senator 700WG may not provide complete control of pests for the entire growing period in all situations. Crops should be monitored for pests following transplanting and throughout the life of the crop. If pests are observed in the crop additional chemical control may be required, in which case an insecticide with a different mode of action should be used. Refer to GENERAL INSTRUCTIONS for Resistance Management Strategy information.</p>
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Potato	Green peach aphid	7g/100L or 86g/ha	7 days	Apply at first sign of aphid infestation.
	Silverleaf whitefly, including type B	7g/100m of row (Mix with water using 1.5-3L of spray mixture per 100m of row)	-	Furrow spray at planting Apply as part of the planting process to the open furrow as a narrow spray band (100-150mm wide) centred in the plant row at seed level. If seed piece breakdown is considered to be a risk eg. In hot sandy soils, avoid wetting the seed during application of Senator 700WG. Do not leave Senator 700WG exposed to sunlight. Sprayed soil should be covered immediately. After the planting operation, the treated layer of soil should be at least 100mm below the soil surface.
	Green peach aphid	4.5g/100m of row (Mix with water using 1.5-3L of spray mixture per 100m of row)		
Sweet potato	Silverleaf whitefly, including type B	7g/100L or 72g/ha	7 days	Apply at first sign of whitefly infestation. Apply dilute sprays (7g/100L) to run-off. Ensure thorough coverage of underside of leaves. Use of droppers will improve coverage of underside of leaves.
Tomato	Green peach aphid	7g/100L or 86g/ha	3 days	Apply at first sign of aphid infestation.

3. ORNAMENTALS AND TURF

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Azaleas in pots	Azalea lace bug	1g/250mL water/pot	-	Use as a soil drench for pots up to 20L capacity. Prior to application remove mulch and dead vegetation, and moisten the soil surface. Apply the Senator 700WG mixture, and then water it in well immediately after application.
Duboisia	Green peach aphid	7g/100L	-	Apply when aphid numbers reach spray threshold levels as determined by regular monitoring. Ensure thorough coverage of all leaves.
Elm	Elm leaf beetle	2g/25mm of tree diameter at breast height	-	Mix the required dose in sufficient water to adequately treat each tree. Use at least 50L of mix per tree up to a tree diameter of 400-500mm and then 100L per tree for larger trees. Inject mix to a depth of 20-30cm in a minimum of 4 injection sites per tree, 0.75 to 1.5m apart, arranged in an evenly spaced grid to just beyond the drip line. Ensure root zone is adequately moist with active root growth. Keep treated area moist for 7-10 days after treatment. Treat at least 6-10 weeks prior to pest attack in late winter or early spring when roots are active. DO NOT treat if soil is waterlogged.
Ornamental plants	Aphids Azalea lace bug Bronze orange bug Harlequin bug Citrus mealybug Greenhouse thrips Fullers rose weevil Silverleaf whitefly (suppression only)	7g/100L	-	Apply as a thorough cover spray at first sign of insect infestation.
	Hibiscus flower beetle	14g/100L		Spray buds and flowers as needed.
	Longtailed mealybug	14g/100L + surfactant		Apply 3 sprays 2 weeks apart. Use a non-ionic surfactant at label rate.
	Psyllids	7g/100L		Spray at first sign and then a week later.
	Soft scales			Spray in late spring or when small scales are first seen. Apply 3 sprays 2 weeks apart. Add a wetting agent.
Ornamentals in pots	Scarab beetle larvae	1g/5L water	-	Use as a soil drench. 5L of mixture will treat twenty 6L pots. Prior to application remove mulch and dead vegetation, and moisten the soil surface. Apply the Senator 700WG mixture, and then water it in well immediately after application.

Pandanus trees	Flatid (<i>Jamella australiae</i>)	Spot spray 250g/100L of water Stem injection 500g/1L of water	-	Spot spray: Spray 100mL of mixture directly into the leafy throat of each head. Stem injection: Drill holes 0.5-1cm in diameter and 10cm deep at an angle of 30° and 1-1.5m above ground level. Drill one hole per limb (or trunk in single trunked trees). Apply 5mL of mixture in each hole and seal the hole. Do not reapply in the same holes. Uptake of Senator 700WG, and therefore control of the pest in heavily infested heads already showing severe damage, will be slow and may be incomplete.
Roses	Aphids	7g/100L	-	Apply as a thorough cover spray at first sign of insect infestation.
		1g/2L water/plant		Use as a soil drench by pouring mixture evenly around drip zone. Use this rate for plants up to 1m high. For each additional metre of plant height, add 0.6g extra of Senator 700WG to the 2L of water. Prior to application remove mulch and dead vegetation, and moisten the soil surface. Apply the Senator 700WG mixture, and then water it in well immediately after application.
Seedling eucalypts (to 1m high) in pots	Chrysomelid beetle larvae Psyllids	0.7g/plant	-	Mix in water up to 0.5L per 3L pot and apply to soil. Use less water for smaller pots. DO NOT dilute to the point where mix runs out the bottom of pots.
Turf	First instar larvae of: African black beetle Argentinian scarab Pruinose scarab	715g/ha or 7g/100m ²	-	Apply at peak egg hatch that is mid Spring to mid Summer depending on species.
	Larvae of billbug	Spray with at least 400L water per hectare to ensure even coverage. Preferably spray on to wet or dewy grass. Irrigate with 12mm of water commencing within one hour of application.		Monitor adult activity through late Spring and early Summer. Spray when numbers peak, or when small larvae (4mm) are found in the thatch or surface soil. Early application is essential to minimize grass damage due to feeding.

4. OTHER CROPS

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Cotton	Cotton aphid (<i>Aphis gossypii</i>)	72g/ha + Nufarm Pulse® Penetrant at 0.2% v/v (2mL/L water)	13 weeks	<p>The addition of Nufarm Pulse Penetrant is critical for the performance of Senator 700WG. Apply early in the establishment of an aphid infestation when numbers are low (ie no more than 1 or 2 leaves per plant with honeydew present). Applications made later than this may result in reduced control.</p> <p>Shorter residual control may be evident and a repeat application of a registered aphicide (follow the Cotton Insecticide Resistance Management Strategy for cotton aphid) may be required to achieve complete control:</p> <ul style="list-style-type: none"> • if applications of Senator 700WG plus Pulse are timed too late (see above); or • if existing high density aphid colonies (hotspots) are present; or • if aphids have established throughout the plant canopy (especially lower in the canopy); or • if there is high reinfestation pressure; or • if there is rapid crop growth; or • if Senator 700WG plus Pulse is used following a spray-failure (eg resistance to organophosphate or carbamate insecticides). Note: Where resistance to carbamates or organophosphates is suspected, Senator 700WG plus Pulse should be used first so as not to delay control of the aphids present. <p>Aphids treated with Senator 700WG plus Pulse may still be present on the plant but will not be feeding. Control of aphids should initially be assessed by a reduction in fresh honeydew and not on the presence of aphids on the plant. After ingesting Senator 700WG, aphids may take up to 5 days to die.</p>
	Mirids Brown flea beetle			Apply when pest numbers reach treatment threshold levels as determined by field checks.
Sugarcane (plant cane) All sugarcane areas	Greyback canegrub (<i>Dermolepida albohirtum</i>)	8-11g/100m of cane row (equivalent to 525-720g/ha for single row cane with 1.52m spacing between rows)	Harvest: nil Grazing: 21 weeks	<p>Moderate – high pest pressure (2 or more grubs/stool expected)</p> <p>August – November applications from planting to hilling-up Apply at planting, or at first working, or at half-open drill stage, or at fill-in or final hilling. Apply at fill-in or final hilling only if sufficient soil cover can be applied. Use the high rate where heavy canegrub infestation is expected (4 or more grubs/stool). Apply in a narrow spray band in the planted row. Treated soil must be covered immediately. Refer Application directions under GENERAL INSTRUCTIONS.</p>
		5.5g/100m of cane row (equivalent to		<p>Low pest pressure (less than 2 grubs/stool expected)</p>

		360g/ha for single row cane with 1.52m spacing between rows)		<p>September – November applications at fill-in and hilling-up only</p> <p>Apply at fill-in or final hilling only. Apply at fill-in or at final hilling only if sufficient soil cover can be applied.</p> <p>Apply in a narrow spray band in the planted row. Treated soil must be covered immediately. Refer Application directions under GENERAL INSTRUCTIONS.</p>
	Bundaberg canegrub (<i>Lepidiota crinita</i>)	5.5-8g/100m cane row (equivalent to 360-525g/ha for single row cane with 1.52m spacing between rows)		<p>Apply at the drill fill-in stage of plant cane. Apply in a band 15-20cm wide in the bottom of the furrow. Bring in at least 10cm of soil immediately with covering tynes.</p> <p>Apply the higher rate if heavy Bundaberg canegrub pressure is anticipated.</p>
	Consobrina 2 year race canegrub (<i>Lepidiota consobrina</i>)	11g/100m cane row (equivalent to 720g/ha for single row cane with 1.52m spacing between rows)		<p>Apply at the drill fill-in stage of plant cane. Apply in a band 15-20cm wide in the bottom of the furrow. Bring in at least 10cm of soil immediately with covering tynes.</p>
Sugarcane (plant cane) Southern Qld (Bundaberg and south) & NSW only	Childers canegrub Negatoria canegrub Plectris canegrub Rhopaea canegrub Southern one-year canegrub	5.5-8g/100m of cane row (equivalent to 360-525g/ha for single row cane with 1.52m spacing between rows)		<p>Apply generally in spring or summer either at planting, or at first working, or at half-open drill stage, or at fill-in or final hilling. Apply at fill-in or final hilling only if sufficient soil cover can be applied.</p> <p>If larvae are likely to be present at or soon after planting (eg. in a plough out/replant situation) then early application is recommended. If larvae pressure is not anticipated until the crop is established, then application at the later recommended timings ie. closer to the first canegrub larvae presence may be more effective; for example, for autumn plantings, application should generally be delayed until spring.</p> <p>Use the high rate where heavy canegrub infestation is expected, or to obtain longer residual activity.</p> <p>Apply in a narrow spray band in the planted row. Treated soil must be covered immediately. Refer Application directions under GENERAL INSTRUCTIONS.</p>
Sugarcane (ratoon cane) All sugarcane areas	Greyback canegrub (<i>Dermolepida albohirtum</i>)	8-11g/100m of cane row (equivalent to 525-720g/ha for single row cane with 1.52m spacing between rows)		<p>Apply from September to November to fields which are at high risk of greyback grub damage.</p> <p>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.</p> <p>Use the high rate when high grub</p>

			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).
	French's canegrub	8-11g/100m of cane row (equivalent to 525-720g/ha for single row cane with 1.52m spacing between rows)	Begin monitoring for the presence of grubs in September and continue to monitor at regular intervals. Apply Senator 700WG immediately if grub numbers have reached an economic threshold (eg. 3 grubs per stool). Early applications are more effective than later ones. DO NOT apply any later than November. Use the high rate when grub populations are high, eg. an average greater than 5 grubs per stool or if application is late (damage already visible). Apply only as a subsurface soil application behind coulters (refer to Application directions under GENERAL INSTRUCTIONS).
	Negatoria canegrub	5.5-8g/100m of cane row (equivalent to 360-525g/ha for single row cane with 1.52m spacing between rows)	
Sugarcane (ratoon cane) Southern Qld (Bundaberg and south) & NSW only	Childers canegrub Plectris canegrub Rhopaea canegrub Southern one-year canegrub	5.5-8g/100m of cane row (equivalent to 360-525g/ha for single row cane with 1.52m spacing between rows)	Begin monitoring for the presence of grubs in September (December for Southern one-year canegrub) and continue to monitor at regular intervals. Apply Senator 700WG immediately if grub numbers reach an economic threshold (eg. 3-4 grubs per stool). Early applications are more effective than later ones. Use the high rate when grub populations are high, eg. an average greater than 5 grubs per stool or if application is late (damage already visible). Apply only as a subsurface soil application behind coulters (refer to Application directions under GENERAL INSTRUCTIONS).

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

WITHHOLDING PERIODS

Brassicas (foliar), Capsicum (foliar), Eggplant (foliar), Potatoes (foliar), Sweet potatoes (foliar):

DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION

Citrus:

DO NOT HARVEST FOR 20 WEEKS AFTER APPLICATION

Cotton:

DO NOT HARVEST FOR 13 WEEKS AFTER APPLICATION

DO NOT GRAZE OR CUT FOR STOCK FOOD

Cucurbits (foliar):

DO NOT HARVEST FOR 1 DAY AFTER APPLICATION

Chicory, Eendive, Lettuce (excluding head lettuce) and Radicchio:

DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION

Head lettuce:

DO NOT HARVEST FOR 6 WEEKS AFTER APPLICATION

Tomatoes (foliar):

DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION

Stone fruit:

DO NOT HARVEST FOR 21 DAYS AFTER APPLICATION

Sugarcane:

NOT REQUIRED WHEN USED AS DIRECTED

DO NOT GRAZE OR CUT FOR STOCKFEED FOR 21 WEEKS AFTER APPLICATION

All other crops:

NOT REQUIRED WHEN USED AS DIRECTED

Except for sugarcane, DO NOT graze any treated area, or cut for stock food or feed produce harvested from treated area to animals, including poultry.

GENERAL INSTRUCTIONS

Insecticide Resistance Warning

GROUP	4A	INSECTICIDE
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For insecticide resistance management, Senator 700WG Insecticide is a Group 4A insecticide. Some naturally occurring insect biotypes resistant to Senator 700WG 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 700WG or other Group 4A insecticides are used repeatedly. The effectiveness of Senator 700WG 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 700WG to control resistant insects. Senator 700WG 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

Cotton aphid in cotton:

Observe the cotton industry Insecticide Resistance Management Strategy (IRMS).

Aphids, whitefly and melon thrips in various crops:

DO NOT apply Senator 700WG (or other Group 4A insecticides) in consecutive sprays within and between seasons. Rotate with registered insecticides from other mode of action groups.

Do not apply more than one soil application of Senator 700WG to each crop. Do not use Senator 700WG or any other Group 4A insecticide as a foliar spray after soil application of Senator 700WG in that crop. Refer to district advice for local silverleaf whitefly resistance management strategies.

Confined environments such as glasshouses:

Annuals: DO NOT apply more than one spray of Senator 700WG (or other Group 4A insecticides) to any one crop.

Perennials: Rotate with registered insecticides from other groups. Use a maximum of three Senator 700WG (or other Group 4A insecticides) sprays in any 12 month period.

Brassica and lettuce (seedling drench, furrow spray and plant hole drench applications)

DO NOT apply Senator 700WG or any other Group 4A Insecticide following a seedling drench, furrow spray or plant hole drench application of Senator 700WG or any other Group 4A Insecticide in that crop.

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 700WG treated crop. However, in some very susceptible crops (eg. pumpkins) 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 700WG, and appropriate fast acting insecticides for control of adults should be applied if economic thresholds are reached or excessive adult feeding damage is observed.

NOTE ON ORNAMENTALS

Senator 700WG Insecticide has been used on a wide range of ornamental plant species without damage. However, some species and varieties are particularly sensitive to chemical sprays and as this is often related to local conditions it is advisable to treat only a small number of plants first, in order to ascertain their reaction before treating the whole crop.

EXPORT OF TREATED PRODUCE

Growers should note that MRLs or import tolerances do not exist in all markets for edible produce treated with Senator 700WG. If you are growing edible produce for export, please check with Crop Care Australasia Pty Ltd for the latest information on MRLs and import tolerances before using Senator 700WG.

MIXING

Senator 700WG mixes readily with water and should not be pre-mixed. Slowly add the required amount of product to the water under agitation in the spray vat. Maintain agitation throughout spraying. After a stoppage, thoroughly re-mix before recommencing spraying.

APPLICATION

Special Instructions for Stone Fruit

Dilute Spraying

- Use a sprayer designed to apply high volumes of water up to the point of run-off and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to the point of run-off. Avoid excessive run-off.
- The required water volume may be determined by applying different test volumes, using different settings on the sprayer, from industry guidelines or expert advice.
- Add the amount of product specified in the Directions for Use table for each 100L of water. Spray to the point of run-off.
- The required dilute spray volume will change and the sprayer set up and operation may also need to be changed, as the crop grows.

Concentrate Spraying

- Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required to reach the point of run-off) and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.
- Determine an appropriate dilute spray volume (See Dilute Spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate.
- The mixing rate for concentrate spraying can then be calculated in the following way:

Example Only

1. Dilute spray volume as determined above: For example 1500L/ha
 2. Your chosen concentrate spray volume: For example 500L/ha
 3. The concentration factor in this example is: 3 X (ie $1500L \div 500L = 3$)
 4. As the dilute label rate is 7g/100L for stone fruit, then the concentrate rate becomes 3 x 7, that is 21g/100L of concentrate spray.
- The chosen spray volume, amount of product per 100L of water, and the sprayer set up and operation may need to be changed as the crop grows.
 - Do not use a concentrate rate higher than that specified in the Critical Comments.
 - For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

Foliar Spray Application

Where rates are expressed in g/100L, mix specified rates of product per 100L water and spray plants to "point of run-off" stage, thoroughly covering all plant surfaces.

Application - Cotton

Thorough coverage of cotton plants is essential to achieve maximum performance from Senator 700WG plus Pulse. Equipment should be calibrated to achieve a **minimum of 60 droplets/cm² on the target foliage**. The appropriate droplet size category for optimum performance from Senator 700WG plus Pulse is dependent on equipment and is defined below. Do not apply when unfavourable environmental conditions may reduce the quality of spray coverage.

Ground Application (Cotton)

Application using ground equipment should be made using **hollow cone nozzles** with a **minimum spray volume of 100L/ha**. Hollow cone nozzles are recommended but if flat fan nozzles are used, higher water volumes will be required and nozzles should be configured to ensure thorough coverage. Apply using a MEDIUM spray droplet size category according to nozzle manufacturer specifications that refer to the ASAE S572 Standard or the BCPC Guideline. Where multiple nozzles per row are used, they should be of the same specification to ensure that each nozzle contributes an equal proportion of the required dose. Where multiple nozzles per row are used (particularly for banded applications) ensure the correct nozzle overlap

pattern is achieved on the target foliage. **Banded applications less than 100% are not recommended beyond the 15 node crop stage.**

Aerial Application (Cotton)

Apply in a **minimum spray volume of 25L/ha**. Apply using a FINE spray droplet size category according to nozzle manufacturer specifications that refer to the ASAE S572 Standard or the BCPC Guideline. Do not exaggerate swath width or exceed a swath width of 20 to 22m. Do not apply Senator 700WG plus Pulse using Ultra Low Volume (ULV) methods. The use of large droplet placement equipment is not recommended.

Seedling Drench Application (Brassicas, Lettuce)

Ensure even application

Deliver the target rate of Senator 700WG to seedling trays, ensuring uniform distribution of Senator 700WG to each transplant cell. This may be achieved by a single (full rate) or consecutive, multiple (part rate) passes of the application mechanism.

Senator 700WG should be applied through dedicated nursery equipment eg. a hydraulic boom or other suitable equipment which has been carefully set up and calibrated to ensure uniform distribution. **DO NOT use watering cans, hand wands, impact sprinklers and other imprecise means of application.**

Avoid run-through from cells

Applied spray volume must be related to the cell media moisture content and cell capacity, to ensure that there is virtually no loss of applied spray as run-through from cell trays during or following the Senator 700WG application.

Prevent spray drift from treatment area

Spray application should be in an enclosed area, or for example, with an adequately shrouded spray boom, to ensure there is no opportunity for spray drift from the treatment site.

Minimise and capture excess spray

The quantity of excess spray, ie. applied spray mixture which is not confined in the cell medium, must be minimised by appropriate application equipment set-up. Excess spray includes applied spray which misses the target, run-off of inadvertently runs-through the cells. Any such excess must be captured and should be filtered and returned to the spray tank or stored for collection by a licensed waste treatment service provider.

Avoid losses from watering after treatment

Avoid watering seedlings after application. If watering is necessary it must be done sparingly. **DO NOT allow run-through from the cells.**

Schedule treatment to minimise timer interval to planting

Seedling damage may result from Senator 700WG seedling drench treatment, particularly if transplanting does not occur soon after treatment. It is recommended that transplanting occur within 24 hours of treatment, therefore application should be scheduled accordingly, close to the time of seedling dispatch.

Application - Sugarcane

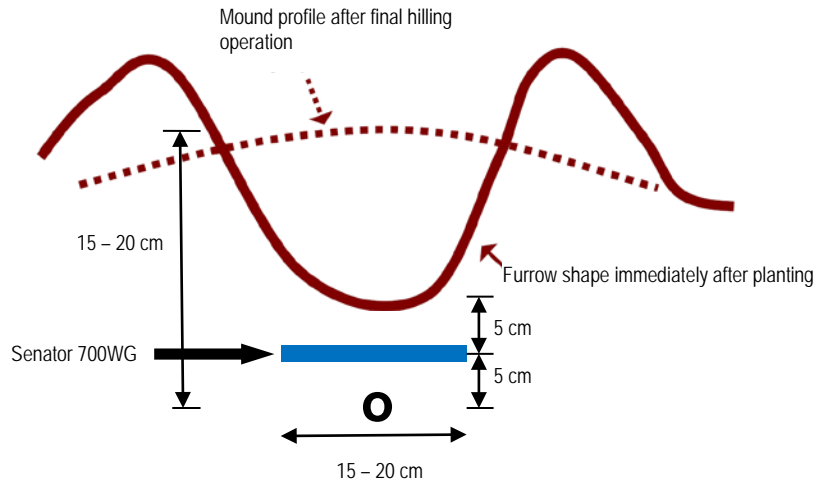
Immediately following application, Senator 700WG must be covered by at least 5cm of soil and there should be at least 10cm of soil cover over the treated layer after the final hilling-up operation. Apply in no less than 1.5 litres of water per 100 metres of cane row (equivalent to no less than 100 L/ha of water for single row cane with 1.52m spacing between rows).

Plant Cane

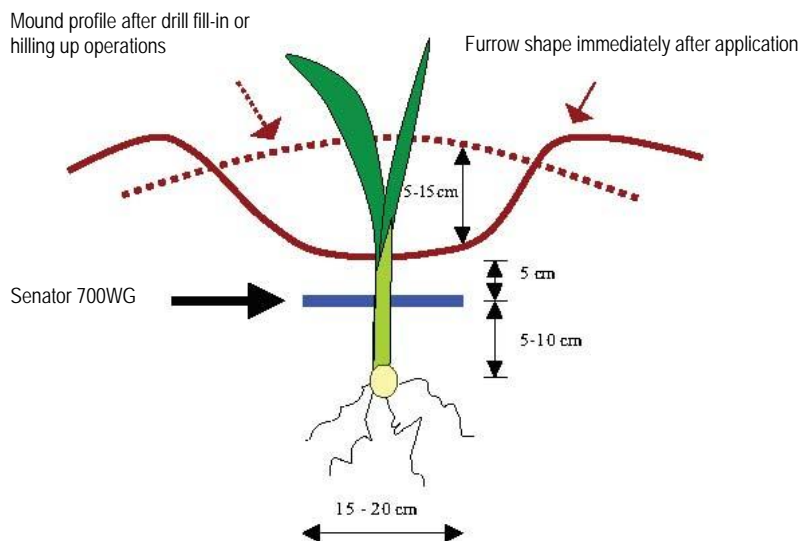
Apply as a soil surface application at the base of the drill in a band 15-20cm wide at planting or first working or the drill fill-in or at final hilling stages of plant cane. Application at planting or first working is advised where shallower planting (15-20cm) is practiced to ensure a minimum of 10cm of soil cover is achieved at the final hilling. 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 AT PLANTING

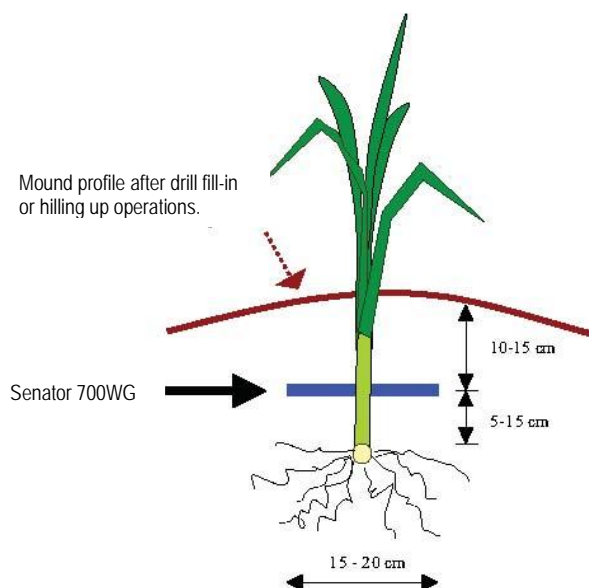
Fix a spray nozzle or nozzles on the planter so that the Senator 700WG spray band is directed at soil just after it covers the sets to a depth of at least 50mm. The boards on the planter need to be adjusted so that at least another 50mm of soil comes over the top of the treated band of soil. Subsequent cutaway cultivations must not disturb soil to the depth of the treated band.



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



3. APPLY INTO THE FURROW – AT DRILL FILL-IN OR FINAL HILLING UP



Ratoon Cane

Twin coulter method: Apply subsurface behind twin coulters to a depth of 100-125 mm. Coulters should be spaced 220mm to 500mm 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.

Application – Citrus

Ensure treatment area below canopy is weed free prior to application and remains weed free throughout season, otherwise reduced control will occur.

Soil drench: Apply Senator 700WG in a water mix using 1L of water per tree. Apply evenly to moist soil immediately around the base of the tree trunk to a maximum trunk height of 20cm. Ensure the mixture infiltrates the soil around the trunk and does not run off the soil. DO NOT disturb or remove the treated soil around the trunk during the season. Irrigation for up to 1 hour (depending on soil type) immediately after a soil drench application is preferred but not essential. DO NOT leave Senator 700WG mixture exposed to sunlight.

Drip or micro-sprinklers (below canopy): For treatment under non-bearing trees, application via micro-sprinklers is not recommended and the Critical Comments in the Directions for Use table should be consulted for further guidance on application by drip-trickle.

Drip emitters placed under the tree canopy or near the trunk provide better results than those spaced irregularly or further from the tree. Micro-sprinklers should only be used when the wetting zone can be contained beneath the tree canopy, especially in young orchards where there is minimal canopy and root development. Begin injection only after soil below the trees furthest from the injection point is partially wetted up and irrigation system has reached operating pressure. After Senator 700WG injections is completed, and lines have been flushed continue irrigation for no longer than 1 hour. On sandy soils, this irrigation period after lines have been flushed should not be more than 10 minutes. Allow 48 hours before subsequent irrigations. This application technique is best suited to an IPM system, where beneficial species (eg. parasitic wasps) are released. DO NOT disturb or remove the treated soil during the season. DO NOT leave Senator 700WG mixture exposed to sunlight.

COMPATIBILITY

Senator 700WG is compatible with non ionic surfactants (wetting agents) such as Activator[®] Surfactant, with the organosilicone based surfactants Pulse[®] Penetrant and Du-Wett[®] and with the insecticide synergist Synergy[®].

As formulations of other manufacturers' products are beyond the control of Crop Care Australasia Pty Ltd, all mixtures should be tested prior to mixing commercial quantities. As changes in climatic conditions can alter the sensitivity of plants to mixtures of sprays, Crop Care Australasia Pty Ltd cannot be responsible for the behaviour of such mixtures.

PRECAUTIONS

Re-entry Period: Do not enter treated areas until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist over normal clothing and chemical resistant gloves. Clothing must be laundered after each day's use.

Seedling drench application:

At the nursery – gloves should be worn when handling treated seedling trays or seedlings. Cotton overalls buttoned to the neck and wrist (or equivalent clothing) should also be worn, particularly if seedlings and/or trays are still wet following treatment.

On farm including during planting – gloves should be worn when handling treated seedling trays or seedlings.

Furrow spray application: At planting, steps should be taken to ensure workers do not contact treated soil.

Plant hole drench application: At planting and when applying drench, steps should be taken to ensure workers do not contact treated soil or drench mixture.

PROTECTION OF LIVESTOCK

Dangerous to bees. DO NOT spray any plants in flower while bees are foraging.

DO NOT graze any treated area, or cut for stock food.

DO NOT graze any treated turf or feed turf clippings from any treated area to poultry or livestock.

DO NOT feed produce harvested from treated area to animals, including poultry.

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. Do not over irrigate or cause run-off. Irrigation should only occur when soil moisture measurements indicated the need for addition of water.

Citrus: For the first 48 hours after application irrigation should be restricted to only that which is recommended immediately after application (refer to Application section).

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.

Seedling drench application: DO NOT allow run-off from treatment areas to enter drains and waterways.

Furrow spray and plant hole drench application (brassicas): 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 within 48 hours of application should be minimal, and sufficient to reduce seedling stress only. Irrigation run-off from treated areas should be prevented from entering drains and waterways.

Potatoes (furrow spray application): Irrigation within 48 hours of application should be minimal. If necessary, a light irrigation, avoiding run-off, may be performed.

Run-off management: Do not apply within 3 metres of aquatic areas. The growth of a vegetative filter strip between the application site and any water body would also assist.

A spray drift minimisation strategy should be employed at all times when aurally applying sprays. The strategy envisaged is exemplified by the cotton industry's Best Management Practices Manual.

STORAGE AND DISPOSAL

HDPE: 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 deliver empty packaging for appropriate disposal to an approved waste management facility. If an approved waste management facility is not available bury the empty packaging 500mm 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.

Bag-In-Box: Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. Single rinse before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. Puncture or shred 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 500mm 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

Harmful if swallowed. May irritate the eyes and skin. Avoid contact with eyes and skin. If applying by hand, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow-length chemical resistant gloves and a half facepiece respirator. Wash hands after use. After each day's use, wash gloves and respirator (and if rubber wash with detergent and warm water) and contaminated clothing.

FIRST AID

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

ADDITIONAL STATEMENTS (WHS REGULATIONS 2011)

Wash hands and exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves, clothing, eye and face protection. IF SWALLOWED: Rinse mouth.

Additional information is listed in the 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.

In a Transport Emergency Dial 000 Police or Fire Brigade	SPECIALIST ADVICE IN EMERGENCY ONLY 1800 033 498 ALL HOURS – AUSTRALIA WIDE
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