Product Name: IMIGUARD 350 INSECTICIDE
APVMA Approval No: 66688/146340

RLP
APPROVED

Label Name:	IMIGUARD 350 INSECTICIDE

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

Constituent Statements:	ACTIVE CONSTITUENT: 350 g/L IMIDACLOPRID

Mode of Action:	GROUP 4A INSECTICIDE

Statement of Claims:	For the control of various insect pests of cotton, fruit, vegetables, ornamentals and turf as a foliar spray and as a soil-applied treatment for the control of various pests in sugarcane and peanuts, certain pests in apples, citrus and various vegetable crops, and for the control of certain pests in bananas as specified in the DIRECTIONS FOR USE table

Net Contents:	1L - 1000L

Restraints:	DO NOT use on crops produced hydroponically or in glasshouses and other covered situations. DO NOT apply Imiguard 350 INSECTICIDE or any other Group 4A Insecticide as a foliar spray after soil application of Imiguard 350 INSECTICIDE in that crop. DO NOT apply more than one soil application of Imiguard 350 Insecticide or any other Group 4A Insecticide per crop for vegetables, sugarcane, or peanuts per season for citrus or per two years for apples. DO NOT apply more than one application of Imiguard 350 INSECTICIDE or any other Group 4A insecticide per crop for bananas. SPRAY DRIFT RESTRAINTS

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

Directions for Use:	This section contains file attachment.

Other Limitations:	

Withholding Periods:	Harvest (H): Brassicas, Capsicum, Eggplant, Potatoes, 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 Cucurbits (Foliar): DO NOT HARVEST FOR 1 DAY AFTER APPLICATION Stone Fruit (Foliar): DO NOT HARVEST FOR 21 DAYS AFTER APPLICATION Sugarcane: DO NOT HARVEST FOR 21 WEEKS AFTER APPLICATION Tomatoes (Foliar): DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION. All other crops: NOT REQUIRED WHEN USED AS DIRECTED Grazing (G): Peanuts: DO NOT GRAZE OR CUT TREATED AREAS FOR STOCKFOOD FOR 12 WEEKS AFTER APPLICATION. Sugarcane: DO NOT GRAZE OR CUT FOR STOCKFEED FOR 21 WEEKS AFTER APPLICATION. All other crops: DO NOT GRAZE ANY TREATED AREA, OR CUT FOR STOCK FOOD. DO NOT FEED PRODUCE HARVESTED FROM TREATED AREAS TO ANIMALS, INCLUDING POULTRY.

Trade Advice:	Export of Treated Product: Growers should note that MRLs or import tolerances DO NOT exist in all markets for edible produce treated with Imiguard 350 INSECTICIDE. If you are growing edible produce for export please check with Shandong Rainbow International Co Ltd for the latest information on MRLs and import tolerances before using Imiguard 350 INSECTICIDE.

General Instructions:	Note for ornamentals: Imiguard 350 INSECTICIDE has been used on a wide range of ornamental plant species without damage. Some species and varieties however are particularly sensitive to chemical sprays and as this sensitivity 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. MIXING

Prior to pouring, shake container vigorously, then add the required quantity of Imiguard 350 INSECTICIDE to water in the tank while stirring or with agitators in motion. Imiguard 350 INSECTICIDE requires constant agitation in the tank.
APPLICATION (Sugarcane) Plant cane
Application can occur at various stages from planting until hilling up as described below. Imiguard 350 INSECTICIDE should be applied into the plant drill
in a narrow band centred on the cane row. Mix Imiguard 350 Insecticide with water and spray the mixture into the cane drill as a narrow 50-100 mm wide band in the middle of the drill. 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).
Adjust the application equipment so that the treated band of soil is at least 50 mm above the level of the setts in the soil and is immediately covered by at least 50 mm more soil on top of that layer. There should be at least 100 mm of soil cover over the treated layer after the final cultivation or hilling-up operation. This placement of the spray band can be achieved in several ways. Not all application methods are suited to every circumstance. Application at planting is not recommended for control of greyback canegrubs in situations where very deep planting is practiced.
At planting
Fix a spray nozzle or nozzles on the planter so that the Imiguard 350 INSECTICIDE spray band is directed at soil just after it covers the setts to a depth of at least 50 mm. The boards on the planter need to be adjusted so that at least another 50 mm 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.
At first working, or at half-open drill, or at fill-in
Apply Imiguard 350 INSECTICIDE as a spray band 50-100 mm wide directed at the base of the young cane shoots so that the middle of the drill is treated, not the sides. A single nozzle per row or a directed nozzle each side of each row may achieve this. The treated band must be covered with at least 50 mm of soil immediately. Subsequent cultivations must not disturb soil to the depth of the treated band. There should be at least 100 mm of soil cover over the treated layer after the final cultivation or hilling-up operation.
At hilling up
Apply Imiguard 350 INSECTICIDE as twin narrow spray bands 50 mm wide on each side of the cane rows directed at the base of the young cane shoots. Directed nozzles each side of each row may achieve this. Direct the spray nozzles to ensure that the spray is not blocked by cane shoots or leaves. The treated bands must be covered with at least 100 mm of soil immediately as the final step in the shaping of the row profile.
Ratoon cane
Apply only as a subsurface soil application. 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).
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 Imiguard 350 INSECTICIDE exposed to sunlight. After application ensure the Imiguard 350 INSECTICIDE treated band is covered by at least 100 mm of soil and that coulter slits are filled in completely.
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 Shandong Rainbow International Co 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 Imiguard 350 INSECTICIDE in a water mix using 1 L of water per tree. Apply evenly to moist soil immediately around the base of the tree trunk
to a maximum trunk height of 20 cm. 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 Imiguard 350 INSECTICIDE 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 Imiguard 350 Insecticide injection 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 (e.g. parasitic wasps) are released. DO NOT disturb or remove the treated soil during the season. DO NOT leave Imiguard 350 INSECTICIDE mixture exposed to sunlight.
APPLICATION (Cotton)
Thorough coverage of cotton plants is essential to achieve maximum performance from Imiguard 350 INSECTICIDE plus organosilicone adjuvant. Equipment should be calibrated to achieve a minimum of 60 droplets/cm2 on the target foliage. A droplet size category for optimum performance from Imiguard 350 INSECTICIDE plus organosilicone adjuvant is dependent on equipment and is defined below. DO NOT apply when unfavourable environmental conditions may reduce the quality of spray coverage.
Ground application
Application using ground equipment should be made using hollow cone nozzles with 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. Spray droplets not smaller than a FINE spray droplet category must be used. 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
Apply in a minimum spray volume of 25L/ha. Spray droplets not smaller than a FINE spray droplet category must be used. DO NOT exaggerate swath width or exceed a swath width of 20 to 22 m. DO NOT apply Imiguard 350 INSECTICIDE plus organosilicone adjuvant using Ultra Low Volume (ULV) methods. The use of large droplet placement equipment is not recommended.

APPLICATION (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 information is needed to calculate the concentrate mixing rate. The mixing rate for concentrate spraying may 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 3x (ie 1500L/500L = 3) 4. As the dilute label rate is 15mL/100L for stone fruit, then the concentrate rate becomes 3 x 15, ie 45mL/100L 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. APPLICATION (Peanuts) Fix a spray nozzle or nozzles on the planter so that the Imiguard 350 INSECTICIDE spray band is directed in a narrow band to soil at the bottom of the planting furrow on or below the peanut seed depth. Apply in no less than 1 L of water per 100 metres of peanut row (equivalent to no less than 110 L/ha of water for peanuts with 0.91 m spacing between rows). There must be at least 50 mm soil cover over seed immediately after application. DO NOT leave Imiguard 350 INSECTICIDE exposed to sunlight. APPLICATION (Apples, Bananas, Turf and Vegetables) Refer to instructions in Critical Comments for each application method

Resistance Warning:	INSECTICIDE RESISTANCE WARNING GROUP 4A INSECTICIDE For insecticide resistance management, Imiguard 350 INSECTICIDE is a Group 4A Insecticide. Some naturally occurring insect biotypes resistant to Imiguard 350 INSECTICIDE 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 Imiguard 350 INSECTICIDE and other Group 4A Insecticides are used repeatedly. The effectiveness of Imiguard 350 Insecticide on resistant individuals could be significantly reduced. Since the occurrence of resistant individuals is difficult to detect prior to use, Shandong Rainbow International Co Ltd accepts no liability for any losses that may result from the failure of Imiguard 350 Insecticide to control resistant insects. Imiguard 350 Insecticide may be subject to specific resistance management strategies. For further information contact your local supplier, Shandong Rainbow International Co Ltd representative or local agricultural department agronomist. Resistance Management Strategy Cotton: Observe the cotton industry insecticide Resistance Management Strategy (IRMS). Vegetables: DO NOT apply more than one soil application of Imiguard 350 Insecticide to each crop. DO NOT use Imiguard 350 Insecticide or any Group 4A Insecticide as a foliar spray after soil application of Imiguard 350 Insecticide in that crop. Refer to district advice for local Silverleaf whitefly resistance management strategies. Note for Vegetable Crops: Potential migration of Silverleaf whitefly from neighbouring crops. Adult Silverleaf whiteflies (SLWF) are controlled when they ingest a lethal dose of active ingredient by feeding on a Imiguard 350 Insecticide 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 Imiguard 350 Insecticide, and appropriate fast acting insecticides for control of adults should be applied if economic thresholds are reached or excessive adult feeding damage is observed. Aphids, whitefly and melon thrips in various crops: DO NOT apply Imiguard 350 Insecticide (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 Imiguard 350 INSECTICIDE to each crop

Precautions:	Application in bananas: Ensure application equipment does not leak. To reduce the risk of exposure from accidental leakage, wear gloves during application.

Protections:	PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT DO NOT contaminate streams, rivers or watercourses with chemical or used containers. Imidacloprid is toxic to certain aquatic species. Application should be planned to avoid run-off within 48 hours of application. DO NOT apply to wet/waterlogged soils. DO NOT apply 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 indicate 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. Potatoes: 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 minimization strategy should be employed at all times when aerially applying sprays. The strategy envisaged is exemplified by the cotton industry’s Best Management Practices Manual. PROTECTION OF LIVESTOCK Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Avoid application by surface drippers or micro sprinklers while bees are foraging in the orchard, especially on hot days, as bees can use these devices as sources of water for the hive.

Storage and Disposal:	STORAGE AND DISPOSAL Non-refillable containers Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. Triple rinse containers before disposal. Add rinsings to the spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to the recycler or designated collection point. If not recycling break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm 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. Refillable Containers:

	Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage. Envirodrum Micro Matic Valve (110L) Store in the original sealed Envirodrum in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT tamper with the Micro Matic valve or the security seal. DO NOT contaminate the Envirodrum with water or any foreign matter. After each use of the product, please ensure that the Micro Matic coupler delivery system and hoses are disconnected, triple-rinsed with clean water and drained accordingly. When the contents of the Envirodrum have been used, please return the Envirodrum to the point of purchase. The Envirodrum remains the property of Shandong Rainbow International Co Ltd. Refillable Containers Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. Storage must be secure so that the contents cannot be tampered with. All locks and seals must be in order. If locks and seals are broken prior to initial use then the integrity of this product cannot be assured. If this occurs Shandong Rainbow International Co Ltd should be advised immediately. This minibulk container is reusable and remains the property of Shandong Rainbow International Co Ltd. DO NOT rinse empty container. Empty contents fully into application equipment. Close all valves and return to the point of supply for refill or storage. No other liquid, solid or pesticide product should be put into it. When empty, return to Shandong Rainbow International Co Ltd for cleaning, relabelling and refilling.

Safety Directions:	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, a washable hat, elbow length chemical resistant gloves and a face shield. Wash hands after use. After each day's use wash gloves, face shield and contaminated clothing.

First Aid Instructions:	'If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26, New Zealand 0800 764 766

First Aid Warnings:	

DIRECTIONS FOR USE

FIELD CROPS

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Sugarcane (plant cane) All Sugarcane areas	Greyback canegrub	16-22 mL per 100 metres of cane row (equivalent to 1.05- 1.44L/ha for single row cane with 1.52 m spacing between rows)	21 weeks (G or H)	**Moderate - high pest pressure** (2 or more grubs/stool expected) **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 final hilling only if sufficient soil cover can be applied. Use the high rate where heavy canegrub infestation is expected. Apply in a narrow spray band in the planted row. Treated soil must be covered immediately. Refer to Application directions under GENERAL INSTRUCTIONS.
		11 mL per 100 metres of cane row (equivalent to 720 mL/ha for single row cane with 1.52 m spacing between rows)		**Low pest pressure** (less than 2 grubs/stool expected) ***September – November applications at fill-in and hilling-up only***. Apply at fill-in or final hilling only. Apply at final hilling only if sufficient soil cover can be applied. Apply in a narrow spray band in the planted row. Treated soil must be covered immediately. Refer to Application directions under GENERAL INSTRUCTIONS.
Sugarcane (plant cane) Southern Qld (Bundaberg and south) and NSW only	Childers canegrub, Negatoria canegrub, Plectris canegrub, Rhopaea canegrub, Southern one-year canegrub	11-16 mL per 100 metres of cane row (equivalent to 720mL/ha - 1.05L/ha for single row cane with 1.52 m spacing between rows)		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 final hilling only if sufficient soil cover can be applied. If larvae are likely to be present at or soon after planting (e.g. 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, i.e. closer to the first canegrub larvae presence may be more effective; for example, for autumn plantings, application should generally be delayed until spring. Use the high rate where heavy canegrub infestation is expected, or to obtain longer residual activity. Apply in a narrow spray band in the planted row. Treated soil must be covered immediately. Refer to Application directions under GENERAL INSTRUCTIONS.
Sugarcane (ratoon cane) All Sugarcane areas	Greyback canegrub	16-22 mL per 100 metres of cane row (equivalent to 1.05- 1.44L/ha for single row cane with 1.52 m spacing between rows)	21 weeks (G or H)	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 Imiguard 350 INSECTICIDE exposed to sunlight. After application ensure the Imiguard 350 INSECTICIDE 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.

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Sugarcane (ratoon cane) All Sugarcane areas	French's canegrub	16-22 mL per 100 metres of cane row (equivalent to 1.05- 1.44L/ha for single row cane with 1.52 m spacing between rows)	21 weeks (G or H)	Begin monitoring for the presence of grubs in September and continue to monitor at regular intervals. Apply Imiguard 350 INSECTICIDE immediately if grub numbers have reached an economic threshold (about 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, e.g. 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	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)		
Sugarcane (ratoon cane) Southern Qld (Bundaberg and south) and NSW only	Childers canegrub, Plectris canegrub, Rhopaea canegrub, Southern one-year canegrub			Begin monitoring for the presence of grubs in September (December for southern one-year canegrub) and continue to monitor at regular intervals. Apply Imiguard 350 INSECTICIDE immediately if grub numbers reach an economic threshold (e.g. 3-4 grubs per stool). Early applications are more effective than later ones. 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). Apply only as a subsurface soil application behind coulters (refer to Application directions under **GENERAL INSTRUCTIONS**).
Peanuts Qld, NSW, NT only	Greyback canegrub, Childers canegrub,Negatoria canegrub, French's canegrub, Southern one- year canegrub and Peanut white grub (*Heteronyx piceus*)	6.5 – 13 mL per 100 metres of peanut row (equivalent to 0.71 L – 1.43 L/ ha for single peanut row with 0.91 m spacing between rows)	- (H) 12 weeks (G)	Apply at planting as a narrow in-furrow band spray directed on or below the peanut seed. DO NOT leave Imiguard 350 INSECTICIDE exposed to sunlight. Ensure that product is immediately covered by soil. Canegrub and white grub pest thresholds have not been established in peanuts, however, the use of the highest rate where heavy grub infestations are expected e.g. above 1 grub per plant, is recommended. Refer to Application directions under GENERAL INSTRUCTIONS.

FRUIT CROPS

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Apples	Woolly aphid	**Chemical Control:** 3.5mL/1L of water/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 Imiguard 350 INSECTICIDE 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 rust thrips (*Chaetanaphothrips signipennis*) (Nth Qld, NT, Nth WA only)	2.5 or 3.5 mL/stool Inject undiluted or diluted 50:50 with water		The higher rate may give improved control in some situations. **Application Timing** Do not inject bunched plants. Select the best follower and inject into the base. Do not inject any follower more than once. Injection can occur at any time within 3 months after harvest of the mother plant or nurse-suckering. To limit the risk of plant damage from injection, inject only those followers that are at least 1.5 m tall to the throat of the plant. Plants smaller than 1.5 m tall to the throat can be treated but there is significant risk of plant injury from injection. For application in plant bananas the same minimum height requirement applies as above, plus the plant should be at a stage at least 3 months prior to bell emergence. **Application Method** Injection should occur 15 cm from the base of the plant at an off-centre, downward angle to a depth of 5 to 10 cm. Do not inject into the centre of the plant as this may result in plant death. Injection should be conducted in a manner which ensures applied chemical is retained within the pseudostem. Irrigation or moderate to heavy or prolonged periods of rainfall may saturate the internal structure of the pseudostem, leading to "run-out" from injection holes. Allow sufficient time following irrigation and rainfall events, before application, to minimise such 'run-out'. Imiguard 350 INSECTICIDE should be used as part of an integrated pest management approach which should include the use of other measures for control of banana rust thrips, such as bell injection and bunch applications. **Note:** Application during conditions conducive to banana spider mite may enhance population development. Under these conditions, continue to monitor mite populations following Imiguard 350 INSECTICIDE application, taking appropriate action where thresholds are exceeded.
	Banana weevil borer *(Cosmopolites sordidus*) (Qld, NSW, NT, WA only)	2.5mL/stool Inject undiluted or diluted 50:50 with water		
Bananas- Lady Finger (Qld, NSW, NT, WA only)	Banana weevil borer *(Cosmopolites sordidus*)	2.5 or 3.5mL/stool Inject undiluted or diluted 50:50 with water		
Citrus	Black citrus aphid, Citrus leafminer, Pink wax scale, Red scale	9 mL/tree Apply as a soil drench* OR via micro-sprinkler* or drip irrigation*.	20 weeks (H)	* 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 (e.g. parasitic wasps). Treatment is only recommended for trees of up to 4 m in height. **Citrus leafminer, black citrus aphid:** Apply Imiguard 350 INSECTICIDE 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. **Red scale, pink wax scale:** Monitor crop throughout late spring to early summer (October to December). If scale is observed, apply Imiguard 350 INSECTICIDE after main flowering has finished and prior to or at the onset of crawler emergence. **Multiple flowering and/or overlapping cropping:** Where extended flowering and/or multiple flowering periods occur e.g. lemons and limes, or if the previous seasons crop is still hanging on

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
				the tree during or at the end of a new seasons flowering (overlapping cropping) e.g. Valencia oranges, Imiguard 350 INSECTICIDE should only be applied: 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. DO NOT apply more than once per season.
Citrus (non-bearing only)	Citrus leafminer	6mL/tree Apply as a soil drench* or via drip irrigation	20 weeks (H)	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 maximise contact with the tree root system and to minimise the opportunity for breakdown of Imiguard 350 INSECTICIDE by UV exposure, otherwise Imiguard 350 INSECTICIDE uptake and hence leafminer control may be reduced. Treatment is only recommended for vegetative (non-bearing trees). Apply Imiguard 350 INSECTICIDE between late spring to late summer (October to February) prior to a leaminer 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 9mL/tree rate. DO NOT leave Imiguard 350 INSECTICIDE exposed to sunlight. DO NOT apply more than once per season.
Stone fruit	Green peach aphid, Black peach aphid	**Dilute spraying**: 15mL/100L **Concentrate Spraying**: Refer to mixing/application section	21 days	Apply at the 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 75mL/100L water (ie greater than 5x concentrate)

VEGETABLES

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Brassicas	Grey Cabbage Aphid, Turnip Aphid	15mL/100L or 170mL/ha	7 days	Apply at first sign of aphid infestation. Add a wetting agent.
Brassicas (broccoli, Brussels sprouts, cabbage, cauliflower, kohlrabi)	Silverleaf whitefly, including type B	35 mL/1000 seedlings	-	**Plant hole drench, furrow spray** **Green peach aphid, onion thrips**: When Imiguard 350 INSECTICIDE is used for the control of Silverleaf whitefly, including type B, control of green peach aphid and onion thrips will also be achieved. Imiguard 350 INSECTICIDE provides effective management of pest populations. However, Imiguard 350 INSECTICIDE 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. **Plant hole drench (at or post-transplanting)** Mix Imiguard 350 INSECTICIDE with sufficient water to allow a constant volume of at least 50 mL of drench mixture per plant. Apply the selected volume of drench mixture in the planting hole at planting or within 2 days after planting. At planting and when applying drench, steps should be taken to ensure workers do not contact treated soil or drench mixture. **Furrow spray (prior to planting)** Mix Imiguard 350 INSECTICIDE with water, using at least 2 litres of spray mixture per 100 m 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 100 mm below the soil surface. This method of application may provide less effective control than seedling drench or plant hole drench application methods. At planting, steps should be taken to ensure workers do not contact treated soil.

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Capsicum Cucurbits	Green peach aphid	15mL/100L or 170mL/ha	7 days	Apply at first sign of aphid infestation. The addition of an organosilicone adjuvant is critical for the performance of Imiguard 350 INSECTICIDE. 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 reduce control. 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. If applications of Imiguard 350 INSECTICIDE plus organosilicone adjuvant are timed too late (see above), or if: a. Existing high density aphid colonies (hotspots) are present, or b. Aphids have established throughout the plant canopy (especially lower in the canopy) or c. There is high reinfestation pressure or d. There is rapid crop growth or e. If Imiguard 350 INSECTICIDE plus organosilicone adjuvant is used following a spray failure (eg resistance to carbamates or organophosphates is suspected). Note: Where resistance to carbamates or other organophosphates is suspected, Imiguard 350 INSECTICIDE plus organosilicone adjuvant should be used first so as not to delay the control of the aphids present. Aphids treated with Imiguard 350 INSECTICIDE plus organosilicone adjuvant 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 Imiguard 350 INSECTICIDE, aphids may take up to five days to die.
Capsicum, Cucurbits Eggplant, Sweet Potato, Tomatoes	Silverleaf whitefly, including type B	14 mL/100 metres of row		**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). Begin injection only after water has reached the furthest drip points and soil is partially wetted up. After Imiguard 350 INSECTICIDE injection is completed, continue irrigation only until lines are flushed, not longer than 1 hour. DO NOT apply Imiguard 350 INSECTICIDE 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.
		14 mL/100 metres of row (mix with water using at least 2L of spray mixture per 100 m of row)		**Furrow spray pre-plant**: 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 Imiguard 350 INSECTICIDE 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.

Crop	Pest	Rate	WHP	Critical Comments
Capsicum, Eggplant, Tomatoes	Silverleaf whitefly, including type B	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)		**Plant hole drench**: DO NOT apply Imiguard 350 INSECTICIDE 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.
Capsicum	Green peach aphid	15mL/100L or 170mL/ha (foliar application)	7 days	Apply at first sign of aphid infestation.
Cucumber	Silverleaf whitefly, including type B	15mL/100L or 145mL/ha	1 day	Apply at first sign of whitefly infestation. Apply dilute sprays (15mL/100L) to runoff. Ensure thorough coverage of underside of leaves. Use of droppers will improve coverage of underside of leaves.
Dubosia	Green peach aphid	15mL/100L or 170mL/ha	-	Apply when aphid numbers reach spray threshold levels as determined by regular monitoring. Ensure thorough coverage of all leaves.
Eggplant	Green peach aphid	15mL/100L or 170mL/ha	7 days	Apply at first sign of aphid infestation.
	Melon thrips	15mL/100L or 145mL/ha		Apply at first sign of melon thrips infestation. Apply dilute sprays (15mL/100L) to runoff. Ensure thorough coverage of underside of leaves. Use of droppers will improve coverage of underside of leaves.
Tomato	Green peach aphid	15mL/100L or 170mL/ha	3 days	Apply at first sign of aphid infestation.
Potatoes	Silverleaf whitefly, including type B	14 mL/100 metres of row (mix with water using 1.5-3L of spray mixture per 100 m of row)	-	**Furrow spray at planting** Apply as part of the planting process to the open furrow as a narrow spray band (100 - 150 mm 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 Imiguard 350 INSECTICIDE. Do not leave Imiguard 350 INSECTICIDE exposed to sunlight. Sprayed soil should be covered immediately. After the planting operation, the treated layer of soil should be at least 100 mm below the soil surface. **Foliar Spray** Apply at the first sign of aphid infestation.
	Green peach aphid	9 mL/100 metres of row (mix with water using 1.5-3L of spray mixture per 100 m of row) or 15mL/100L or 170mL/ha		
Sweet Potato	Silverleaf Whitefly including type B	15mL/100L or 145mL/ha (foliar application)	7 days	Apply at first sign of whitefly infestation. Apply dilute sprays (15mL/100L) to run-off. Ensure thorough coverage of underside of leaves. Use of droppers will improve coverage of underside of leaves.

ORNAMENTALS

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Azaleas in pots	Azalea lace bug	2mL/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 Imiguard 350 INSECTICIDE mixture and then water it in well immediately after application.
Elm	Elm leaf beetle	4mL/25mm 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 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.
Ornamentals in pots	Scarab beetle larvae	2mL/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 Imiguard 350 INSECTICIDE mixture and then water it in well immediately after application.
Ornamental Plants	Aphids, Azalea lace bugs, Bronze orange bug, Harlequin bug, Citrus mealybug, Greenhouse thrips, Fullers rose weevil	15mL/100L	-	Apply as a thorough cover spray at first sign of insect infestation.
	Hibiscus flower beetle	30mL/100L		Spray buds and flowers as needed.
	Longtailed mealy bug	30mL/100L + surfactant		Apply 3 sprays 2 weeks apart. Use a non-ionic surfactant at label rate.
	Psyllids	15mL/100L		Spray at first sign and then a week later.
	Soft scales			Spray in later spring or when small scales are first seen. Apply 3 sprays 2 weeks apart. Add a wetting agent.
Pandanus trees	Flatid (*Jamella australi*ae)	Spot Spray: 500mL/100L of water Stem Injection: 1L/1L of water	-	**Spot Spray**: Spray 100mL of mixture direction into the leafy throat of each head. **Stem Injection**: Drill holes 0.5-1cm in diameter and 10cm deep at an angle of 30º and 1-1.5m above ground level. Drill one hole per limb (or trunk in single trunked trees). Apply 5mLof mixture in each hole and seal the hole. Do not reapply in the same holes. Update of Imiguard 350 INSECTICIDE, and therefore control of the pest in heavily infested heads already showing severe damage, will be slow and may be incomplete.
Roses	Aphids	2mL/2L water/plant Or 15mL/100L (foliar application)	-	**Soil Drench** - Use as a soil drench by pouring the mixture evenly around the drip zone. Use this rate for plants up to 1m high. For each additional metre of plant height, add 1.2mL extra of Imiguard 350 INSECTICIDE to the 2L of water. Prior to application remove mulch and dead vegetation and moisten the soil surface. Apply the Imiguard 350 INSECTICIDE mixture and then water it in well immediately after application. **Foliar application** – apply as a thorough cover spray at first sign of aphid infestation.
Seedling eucalypts (to 1m high) in pots	Chrysomelid beetle larvae, Psyllids	1.5mL/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.

COTTON

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Cotton	Aphids	145mL/ha + organosilicone adjuvant at recommended rate	13 weeks	The addition of an organosilicone adjuvant is critical for the performance of Imiguard 350 INSECTICIDE. 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. 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. If applications of Imiguard 350 INSECTICIDE plus organosilicone adjuvant are timed too late (see above), or if: • Existing high density aphid colonies (hotspots) are present, or • Aphids have established throughout the plant canopy (especially lower in the canopy) or • There is high reinfestation pressure or • There is rapid crop growth or • If Imiguard 350 INSECTICIDE plus organosilicone adjuvant is used following a spray failure (eg resistance to carbamates or organophosphates is suspected). Note: Where resistance to carbamates or other organophosphates is suspected, Imiguard 350 INSECTICIDE plus organosilicone adjuvant should be used first so as not to delay the control of the aphids present. Aphids treated with Imiguard 350 INSECTICIDE plus organosilicone adjuvant 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 Imiguard 350 INSECTICIDE, aphids may take up to five days to die.
	Mirids, Brown Flea Beetle			Apply when pest numbers reach treatment threshold levels as determined by field checks.

TURF

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Turf	First instar larvae of African Black Beetle, Argentinian scarab, Pruinose scarab	1.5L/ha or 15mL/100m^2	-	Spray with at least 400L water per hectare to ensure even coverage. Preferably spray onto wet or dewy grass. Irrigate with 12 mm water commencing within one hour of application. Apply at peak egg hatch, ie mid spring to midsummer depending on species.
	Larvae of billbug			Spray with at least 400L water per hectare to ensure even coverage. Preferably spray onto wet or dewy grass. Irrigate with 12 mm 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 minimise grass damage due to feeding.