



Product Name: SUREFIRE FORTUNE 500 MULTI-PURPOSE INSECTICIDE AND TERMITICIDE
APVMA Approval No: 55755/120774

Label Name:	SUREFIRE FORTUNE 500 MULTI-PURPOSE INSECTICIDE AND TERMITICIDE
Signal Headings:	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Constituent Statements:	500 g/L CHLORPYRIFOS 488 g/L HYDROCARBON LIQUID
Mode of Action:	GROUP 1B INSECTICIDE
Statement of Claims:	For post-construction management of subterranean termites in accord with Australian Standard Series AS 3660 and certain insect pests in crops and turf as specified in the Directions for Use table.
Net Contents:	10L 1L 20L 2L 5L
Restrictions:	MANAGEMENT OF SUBTERRANEAN TERMITES (All States, except Tasmania) RESTRAINTS DO NOT apply to soils if excessively wet or immediately after heavy rain or if heavy rains are expected within 24 hours to avoid chemical run-off. DO NOT use at less than indicated label rates. DO NOT use in cavity walls, except for direct treatment of nest. ENSURE that dolomite sub slab bedding material is permeable to termiticide application. GENERAL PEST CONTROL RESTRAINTS: DO NOT spray polycarbonate surfaces/roof sheeting or aged vinyl wall cladding as solvent may cause etching. HORTICULTURAL CROPS: RESTRAINT: DO NOT apply as a concentrate spray to Horticultural crops.

Directions for Use:	This section contains file attachment.
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Other Limitations:	THIS PRODUCT IS TOO HAZARDOUS FOR USE IN HOUSEHOLD SITUATIONS. DO NOT USE THIS PRODUCT IN OR AROUND THE HOME
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Withholding Periods:	<p>WITHHOLDING PERIODS:</p> <p>CEREAL GRAINS, LEGUME ANIMAL FEEDS, GRASSES, GRASS LIKE PLANTS, PASTURES AND OTHER FORAGES/FORAGE CROPS: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 2 DAYS AFTER APPLICATION:</p> <p>ASPARAGUS, BANANAS, CELERY, CITRUS, GRAPEVINES, POME FRUIT, STONE FRUIT: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION</p> <p>CEREAL GRAINS: DO NOT HARVEST FOR 10 DAYS AFTER APPLICATION</p> <p>SUGAR CANE: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION</p> <p>COLE CROPS, CUCURBITS: DO NOT HARVEST FOR 5 DAYS AFTER APPLICATION</p> <p>TOMATOES: DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION</p> <p>GRAIN SORGHUM: DO NOT HARVEST FOR 2 DAYS AFTER APPLICATION</p> <p>COTTON: DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION.</p> <p>DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 4 WEEKS AFTER APPLICATION.</p>
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Trade Advice:	
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General Instructions:	<p>MANAGEMENT OF SUBTERRANEAN TERMITES</p> <p>APPLICATION INSTRUCTIONS</p> <p>1. APPLICATION EQUIPMENT</p> <p>Hand Spraying</p> <ul style="list-style-type: none"> • For hand spraying use a rose head shrouded nozzle, operating at 170 kPa, with a flow meter and pressure regulator fitted to the hand-piece. <p>Treatment Beneath Concrete Slabs or Sealed Areas</p> <ul style="list-style-type: none"> • Where it is not possible or practical to remove the slab to allow direct application to the soil, use a sub-slab injector fitted with multi-directional tip (eg. a B&G or similar system) with a 5 degree upward angle (e.g. 3 way or 4 way) operated at 170 kPa. Ensure a strong seal with the top of the drill hole to avoid leakage. For the best distribution, the injector needs to be held vertically, at right angles to the slab, and rotated during the application through 90 degrees (if using a 4 way dispersion tip), or through 120 degrees (for a 3 way dispersion tip). <p>Injection into Soil</p> <ul style="list-style-type: none"> • Where it is not possible or practicable to trench the soil; use a soil rod with a 3 or 4 way multi-directional tip (B&G, or similar) operated at 170 kPa. The 4 way tip needs to be rotated during the application through 90 degrees and the 3 way tip through 120 degrees. <p>APPLICATION VOLUME</p> <ul style="list-style-type: none"> • To compensate for impervious soils such as heavy clay where application of 5 L/m² would cause run-off, it may be necessary to apply a volume of emulsion less than 5 L/m². When reducing the total volume of emulsion used, increase the concentration accordingly to match the label rate by mixing the required amount of Surefire Fortune 500 per m² in a lesser volume of water. DO NOT use emulsion volumes less than 2 L for every square metre to be treated. <p>Note: Use of emulsion volumes other than the recommended 5 L/m² is only permitted when installing barriers in exposed soil. It is not permitted when injecting through the slab or into sealed areas.</p> <p>Existing Structures</p> <p>a) Strategic Drilling Through Slab, or Sealed Areas</p>
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For treatment of slabs when termites are entering the building through the slab, where reticulation systems do not exist, slab drilling and injection will be required. In most cases, unless there is a known severe termite hazard, grid drilling of the slab is not required. Any such need is to be determined by a licensed Pest Manager.

Treatment needs to be made around the inside of all exterior walls to complete a termite barrier, along both sides of interior wall partitions, around plumbing/electrical or piping entry points and along major cracks or expansion joints. When treating along major cracks or expansion joints it is recommended that holes are drilled alternately on either side of the crack at the recommended drill hole spacings.

For a sand base or sandy soil, apply through a row of holes drilled no more than 300 mm apart and 100-200 mm out from the wall, crack or pipe. For a clay base, apply through a row of holes drilled 150 mm apart and 100 mm from the wall, crack or pipe. Apply 10 L of emulsion per linear metre and ensure the holes are securely plugged after treatment.

b) External Barrier

An external barrier should be installed around the perimeter of the building and should circumference all pipes and service facilities. External barriers should be created by using either a vertical or horizontal barrier, as determined by the building construction type and adjoining ground level. An external barrier is an essential part of the treatment when relying on a chemical soil barrier to provide the full termite management system as per AS 3660.

An external horizontal barrier (must not be used in residential, home garden or publicly accessible areas) is only required when prevention of concealed vertical access by termites is necessary at the perimeter (e.g., when ground level is less than 75 mm from the top of a slab, where the slab is also a barrier to concealed termite movement into the building).

A vertical barrier is required when prevention of concealed horizontal access is necessary (e.g., where ground level is higher than building material vulnerable to concealed horizontal entry by termites).

i) Horizontal Barrier: Industrial and commercial premises only. Commercial premises must not be publicly accessible. Use a rose head shower nozzle operated at 170 kPa to apply the required rate of 1.5 L of the correctly diluted Surefire Fortune 500 Multi-purpose Insecticide and Termiticide per linear metre (150 mm wide) to soil loosened to a depth of approximately 80 mm (see APPLICATION VOLUME Section).

ii) Vertical Barrier: The vertical barrier should be at least 150 mm wide and should reach down to 50 mm below the top of the footings. To achieve this trench to the top of the footings, and where this is not possible, a combination of trenching (preferably at least 300 mm deep) and rodding into the base of the trench may be necessary.

Apply Surefire Fortune 500 Multi-purpose Insecticide and Termiticide emulsion at 100 L per cubic metre of backfill soil, this equates to 1.5 L of emulsion/linear metre of a trench 150 mm wide and 100 mm deep. Where the required vertical barrier is deeper than 100 mm, ensure the same rate of application for the extra volume of soil. Use a rose head shower nozzle operated at 170 kPa to flood the base of the open trench and also to treat the backfill soil as it is replaced into the trench to ensure even distribution. Where rodding is necessary, rod before the trench is treated using the spacings in the following table.

Rod Spacings:

Heavy Clay 150 mm

Clay Loams 200 mm

Sands 300 mm

Insert the rod to the foundation foot as close as possible to the house wall ensuring the chemical is applied during insertion and withdrawal. (See APPLICATION EQUIPMENT Section, Injection into Soil)

c) Suspended Floors

Install vertical barriers as specified in Australian Standard Series AS 3660 to adjoin all substructure walls, stumps, piers, pipes and wastes using the techniques described for external barriers around concrete slabs. (See Existing Structures Section.)

GENERAL INSTRUCTIONS – Termite Management

Termite Management

To minimise the risk of termite infestation, the subfloor area of buildings should be kept free of stored or waste timber and all other building materials that attract termites. Appropriate action should also be taken to eliminate any undue dampness caused by leaking water or sewerage pipes, or inadequate drainage. Subterranean termites need a constant source of moisture to survive. Provision of adequate ventilation in the subfloor area also helps eliminate undue dampness. Pest managers using this product for termite management

should advise the home owner that disturbing the treated soil barrier with subsequent construction of additions or alterations, paths, steps, landscaping, etc, may render the termite management system in place ineffective unless further management options are considered.

Colonies not in contact with the ground

Occasionally subterranean termites establish a colony in a building without having contact with the soil because they have access to a continuous supply of moisture (e.g. from a faulty plumbing fixture or leaking roof). Such colonies are not affected by chemical soil barriers and should be treated as recommended for established colonies, as per Australian Standard Series AS 3660. Surefire Fortune 500 Multi-purpose Insecticide and Termiticide may be applied directly to the termite colony in such situations.

Service requirement

Regular, competent inspections by a licensed Pest Manager are recommended as part of an overall termite management program to determine the prevailing termite pressure and environmental conditions and consequent requirement for further termite management options. Inspections should be performed at least on an annual basis, but more frequent inspections are strongly recommended.

At the 1% application rate, Surefire Fortune 500 Multi-purpose Insecticide and Termiticide can provide an effective chemical soil barrier in subfloor regions for up to 4 years or more north of the Tropic of Capricorn and up to 10 years or more south of the Tropic of Capricorn. At the 1% application rate, Surefire Fortune 500 Multi-purpose Insecticide and Termiticide can provide an effective chemical soil barrier in exposed situations for 2 years or more north of the Tropic of Capricorn, and up to 5 years or more south of the Tropic of Capricorn.

At the 2% application rate north of the Tropic of Capricorn, Surefire Fortune 500 Multi-purpose Insecticide and Termiticide can provide an effective chemical soil barrier in subfloor regions for up to 6 years or more and in exposed situations for up to 3 years or more.

The actual period of efficacy will depend on many factors such as termite hazard, climatic conditions, soil types and soil disturbance and gardening/landscaping practices.

GENERAL PEST CONTROL

MIXING

Half fill the spray tank with water (or creosote where applicable) and add the required amount of Surefire Fortune 500 Multi-purpose Insecticide and Termiticide, then add the remaining water (or creosote) with an agitator running. If using a knapsack sprayer gently shake before using. Only mix sufficient chemical for each specific application.

CLEANING SPRAY EQUIPMENT

After using Surefire Fortune 500 Multi-purpose Insecticide and Termiticide, empty the spray equipment completely and drain the whole system. Thoroughly wash inside the tank using a pressure hose, and drain. To wash the system, quarter fill the tank with clean water and circulate through the pump, lines, hoses and nozzles (for knapsack sprayers spray to waste through the nozzle). Drain and repeat the washing procedure twice.

Disposal of rinsate/rinse water in accordance with Storage and Disposal instructions below.

HORTICULTURAL CROPS

GENERAL INSTRUCTIONS:

MIXING:

Spray: Add the required amount of product slowly to water in the spray tank whilst stirring or agitating. Agitate mixture during spraying.

APPLICATION:

Ground: Apply per hectare rates in sufficient water to give thorough coverage. See Directions for Use for details.

Aircraft: Apply in 10-50 litres of water per hectare.

Re-entry to treated areas:

Field Crops, tree crops and vines: Do not allow entry into treated crops until spray deposits have dried. If prior entry is required, limit duration of entry and wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves.

Clothing must be laundered after each day's use.

Greenhouses: Do not allow entry into greenhouses until spray deposits have dried and treated areas are adequately ventilated. If prior entry is required, limit duration of entry and wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), chemical

	<p>resistant gloves and half-face piece respirator. Clothing must be laundered after each day's use.</p> <p>Cotton chippers: Do not allow entry into treated crops until spray deposits have dried. After this time, wear shoes, or boots, socks, long trousers, long sleeved shirt, gloves and hat.</p>
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Resistance Warning:	<p>INSECTICIDE RESISTANCE WARNING</p> <p>For insecticide resistance management Surefire Fortune 500 Multi-purpose Insecticide and Termiticide is a Group 1B insecticide. Some naturally occurring insect biotypes resistant to Surefire Fortune 500 Multi-purpose Insecticide and Termiticide and other Group 1B insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Surefire Fortune 500 Multi-purpose Insecticide and Termiticide or other Group 1B insecticides are used repeatedly. The effectiveness of Surefire Fortune 500 Multi-purpose Insecticide and Termiticide on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, PCT Holdings Pty Ltd accepts no liability for any losses that may result from the failure of Surefire Fortune 500 Multi-purpose Insecticide and Termiticide to control resistant insects.</p> <p>Surefire Fortune 500 Multi-purpose Insecticide and Termiticide may be subject to specific resistance management strategies. For further information contact your local supplier or PCT representative.</p>
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Precautions:	<p>PRECAUTIONS</p> <p>DO NOT apply inside buildings except as a crack and crevice treatment. DO NOT apply to surface areas such as interior floors or walls.</p> <p>DO NOT allow contact with food, food utensils or food preparation surfaces.</p> <p>RE-ENTRY TO TREATED AREAS</p> <p>Post-construction termite management and general pest control:</p> <p>DO NOT permit re-occupation of any premises until treated areas are completely dry (normally 3-4 hours) and adequately ventilated.</p>
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Protections:	<p>PROTECTION OF PETS AND LIVESTOCK</p> <p>Before spraying remove animals and pets from buildings and other areas to be treated. Cover or remove any open food and water containers.</p> <p>Cover or remove fish tanks before spraying. DO NOT allow animals and pets to contact treated areas for at least 24 hours.</p> <p>Dangerous to bees. DO NOT spray any plants in flower while bees are actively foraging.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT</p> <p>VERY HIGHLY TOXIC TO FISH AND AQUATIC INVERTEBRATES. Rinse waters and run-off from treated areas MUST NOT enter drains or waterways. For under-slab treatments the moisture membrane MUST be installed immediately after treatment. DO NOT apply to waterlogged soils. DO NOT apply if heavy rains are expected to occur within 48 hours of application.</p> <p>HIGHLY TOXIC TO BIRDS. Do NOT treat fill unless it has been placed back in the trench to form the chemical soil barrier.</p> <p>DO NOT spray directly on to the foliage of plants as damage to some species is possible. DO NOT contaminate streams, rivers or waterways with the chemical or used container.</p> <p>SMALL SPILL MANAGEMENT</p> <p>Wear appropriate clothing and protective equipment whilst cleaning up small spills (see SAFETY DIRECTIONS). Apply absorbent material such as earth, sand, cat litter or clay granules to the spill. Sweep up material and contain in a refuse vessel for disposal. If spilled inside a building, wash contaminated surfaces to deactivate the chlorpyrifos with a dilute solution of bleach (sodium hypochlorite), prepared according to the bleach label instructions. Dispose of the contaminated material in accordance with STORAGE AND DISPOSAL instructions below.</p> <p>HORTICULTURAL CROPS</p> <p>PROTECTION OF LIVESTOCK</p>
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- Dangerous to bees. DO NOT spray any plants in flower while bees are actively foraging.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

- HIGHLY TOXIC TO BIRDS AND REPTILES. VERY HIGHLY TOXIC TO FISH AND AQUATIC INVERTEBRATES.
- DO NOT re-apply to the same crop within 10 days (unless specifically recommended in the directions for use).
- Spray drift may occur under adverse meteorological conditions or from certain spray equipment. DO NOT allow spray drift onto sensitive areas including, but not limited to, natural streams, rivers or waterways and human dwellings. A spray drift management strategy such as those in the “Best management Practices Manual for Cotton Growers” or the “Pilots and Operations Manual” should be applied.
- Options for minimising drift to sensitive areas include not spraying within a certain distance of sensitive areas when the wind is blowing towards them (see table for guidance) or ensuring that drifting spray will be intercepted by a catching surface such as a row of shelter trees, an unsprayed row of orchard trees, or hail netting.

SITUATION Recommended buffer distance (m)

Orchard (dormant trees, citrus, large trees) 30

Cotton (aerial application) 300

Other crops (aerial application) 100

- DO NOT apply if heavy rains or storms that are likely to cause surface run off are forecast in the immediate area within 2 days of application.
- DO NOT apply when irrigating to waterlogged soil, or while water remains on the surface or in furrows, unless tail water is captured on farm.
- DO NOT allow contaminated runoff from treated paddocks to enter adjacent areas or water bodies. Runoff contaminated by irrigation events (tail water) and a 25mm rain storm should be captured on farm for two days after application.
- Do not contaminate streams, rivers or waterways with the chemical or used container.
- Dangerous to bees. DO NOT spray any plants in flower whilst bees are foraging.

CLEANING SPRAY EQUIPMENT

After using Surefire Fortune 500 Multi-purpose Insecticide and Termiticide, empty the spray equipment completely and drain the whole system. Thoroughly wash inside the tank using a pressure hose, and drain. To wash the system, quarter fill the tank with clean water and circulate through the pump, lines, hoses and nozzles (for knapsack sprayers spray to waste through the nozzle). Drain and repeat the washing procedure twice.

Disposal of rinsate/rinse water in accordance with Storage and Disposal instructions below.

SMALL SPILL MANAGEMENT

- Wear appropriate clothing and protective equipment whilst cleaning up small spills (see SAFETY DIRECTIONS). Apply absorbent material such as earth, sand, cat litter or clay granules to the spill. Sweep up material and contain in a refuse vessel for disposal. If spilled inside a building, wash contaminated surfaces to deactivate the chlorpyrifos with a dilute solution of bleach (sodium hypochlorite), prepared according to the bleach label instructions.

Dispose of the contaminated material in accordance with STORAGE AND DISPOSAL instructions below.

Storage and Disposal:

STORAGE AND DISPOSAL

- Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.
 - Triple 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 to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.
 - Rinsate/rinse water should be disposed of in accordance with appropriate State legislation and should preferably be sprayed on to an application site or added as up to 10% of the

diluent the next time this product or another similar termiticide is used. Do not put down sewers, gutters or storm water drains.

- In some States wastes can only be buried at a licensed landfill.

Safety Directions:

SAFETY DIRECTIONS

General Use

Product is poisonous if absorbed by skin contact, inhaled or swallowed. Repeated minor exposure may have a cumulative poisoning effect. Will irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale vapour or spray mist. When opening the container, preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, face shield or goggles and contaminated clothing.

For Use As A Termiticide

Product is poisonous if absorbed by skin contact, inhaled or swallowed. Repeated exposure may cause allergic disorders. Repeated minor exposure may have a cumulative poisoning effect. Will irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale vapour or spray mist. When opening the container, preparing spray and using the prepared spray wear chemical resistant clothing buttoned to the neck and wrist and washable hat, elbow-length PVC gloves, goggles, chemical resistant footwear, half facepiece respirator, with combined dust and gas cartridge. If clothing becomes contaminated with product or wet with spray, remove clothing immediately. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, goggles, respirator and if rubber wash with detergent and warm water and contaminated clothing.

First Aid Instructions:

FIRST AID

If swallowed, splashed on skin or in eyes, or inhaled, contact a Poisons Information Centre (Phone e.g. Australia 131126; New Zealand 0800 764 766) or a doctor at once. Remove any contaminated clothing and wash skin thoroughly. If swallowed, activated charcoal may be advised. Give atropine if instructed. If swallowed, do NOT induce vomiting. Give a glass of water. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

First Aid Warnings:

DIRECTIONS FOR USE:

MANAGEMENT OF SUBTERRANEAN TERMITES (All States, except Tasmania)

RATES OF APPLICATION

IMPORTANT: Surefire Fortune 500 should be used as part of an overall termite management program as detailed in Australian Standard Series AS 3660. Use Surefire Fortune 500 Insecticide to establish a continuous chemical soil barrier between the structure and the termite colony in accord with Australian Standard Series AS 3660. A great deal of care is required to understand the construction details of the building and to apply the product in a manner which ensures a complete chemical soil barrier. Where necessary, the barrier may need to be re-applied under the building. Application equipment must be fitted with a flow meter and pressure regulator on the application device. The purpose of a chemical soil barrier is to impede and discourage concealed termite entry into a structure. Barriers may still be bridged by termites, but their entry can then be more easily detected during routine inspections. If a barrier is not complete or breached, then concealed termite entry may occur. It is often not possible to form a complete barrier around existing structures in which case other termite management options and/or more frequent inspections will also need to be considered.

SITUATION	RATE	CRITICAL COMMENTS
Installing a treated soil barrier around buildings.	Horizontal Barriers: 100 mL/m ² Vertical Barriers: 2 L/m ³	Horizontal Barriers not for use in residential, home garden, public accessible commercial areas, public spaces: Use 100 mL of Surefire Fortune 500 Multi-purpose Insecticide and Termiticide per 5 L of water and apply the mixture (emulsion) at a rate of 5 L/m ² . Vertical Barriers: Use 2 L of Surefire Fortune 500 Multi-purpose Insecticide and Termiticide per 100 L of water and apply the mixture at a rate of 100 L/m ³ . See APPLICATION VOLUME section in GENERAL INSTRUCTIONS for further information. 200 mL/10 L is equivalent to a 1% active ingredient emulsion. See Service requirement in GENERAL INSTRUCTIONS for expected barrier life.
Installing a treated soil barrier around buildings north of the Tropic of Capricorn or where <i>Mastotermes darwiniensis</i> is a concern.	Horizontal Barriers: 200 mL/m ² Vertical Barriers: 4 L/m ³	This is an optional high rate for use north of the Tropic of Capricorn, or where <i>M darwiniensis</i> is a concern. Horizontal Barriers not for use in residential, home garden, public accessible commercial areas, public spaces: Use 200 mL of Surefire Fortune 500 Multi-purpose Insecticide and Termiticide per 5L of water and apply the mixture (emulsion) at a rate of 5 L/m ² . Vertical Barriers: Use 4 L of Surefire Fortune 500 Multi-purpose Insecticide and Termiticide per 100 L of water and apply the mixture at a rate of 100 L/m ³ . See APPLICATION VOLUME section in GENERAL INSTRUCTIONS for further information. 4 L/100 L is equivalent to a 2% active ingredient emulsion. See Service requirement in GENERAL INSTRUCTIONS for expected barrier life.
Treatment of termite nest or colony.	100 mL/10 L of water	Once the nest or colony has been located it should be broken open and flooded with emulsion. This includes nests located in trees. When treating trees, the addition of a wetting agent is suggested. Refer to Australian Standard Series AS 3660.
Installing a treated soil barrier around new and existing poles, e.g. transmission and building poles, fence posts and palings.	200 mL/10 L of water or creosote	Trench (preferred) or rod and puddle-treat backfill, ensuring a complete and continuous treated soil barrier is provided around the pole or post, to a minimum depth of 300 mm and minimum width of 150 mm. Use 100 L of emulsion per m ³ of soil. In addition, infested poles may be drilled near ground level and the cavity flooded with the emulsion. This allows seepage to form a treated soil barrier. Note: A 50 mm gap between fence palings and soil will reduce termite attack and fungal decay. Only soil in contact with palings should be treated. <ul style="list-style-type: none"> • Replenishment is recommended within 2 years north of the Tropic of Capricorn and 5 years in other areas. • If the barrier is disturbed, or rain falls immediately after application, retreat to restore continuity and completeness of the barrier. • Refer to Australian Standard Series AS 3660.

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

RATES OF APPLICATION: GENERAL PEST CONTROL

SITUATION	PEST	RATE	CRITICAL COMMENTS
Commercial and industrial areas - must not be publicly accessible.	Cockroaches (residual control and/or heavy infestations)	95 mL/10 L of water	Apply as a coarse, low pressure spray to the point of run-off, to cracks, crevices, harbourages, eaves, downpipes and other places where the pests may occur. For optimum control of webbing spiders, use a 2-part treatment. After applying as a coarse, low pressure spray to harbourages where the spiders may occur, apply a light spray over surfaces of the building.
	Spiders		
	Silverfish	50 mL/10 L	
	Cockroaches (light infestations)	of water	
	Ants including Argentine ants	95 mL/10 L of water. Use at least 1 L spray/ 10 m ² infested area	Locate ant nests and treat appropriately. Spray ant tracks or where ant activity is noticed. Apply to paths in continuous 300 mm bands. Apply to base of buildings, walls, fences, rock-works, trunks of shrubs and trees, and other hard surfaces to a height of 300 mm.
Commercial and industrial areas - must not be publicly accessible.	Fleas (outdoor use only)	90 mL/10 L of water	Apply as a fine droplet spray. Outdoors only. Treat areas where animals frequent. Remove animals during treatment and until spray deposit is dry. Do not treat pets with this product. Pets should be treated with a product registered for application to animals.
Hides/Skins	Hide beetles	200 mL/100 L of water. Use at least 30 mL of spray/ skin	Apply spray to flesh side of skins or hides sufficient to moisten them. Ensure coverage of ears and lugs. To minimise the chance of later infestations, storage area should be sprayed regularly. Repeat application every 3 months. Access through bales should be maintained for application of product.
Light vegetation –only in areas that are not publicly accessible.	Mosquito larvae	30 mL/ha	Dilute with water and apply as a spray to areas infested with mosquitoes.
Medium vegetation – only in areas that are not publicly accessible.		60 mL/ha	
Heavy vegetation - only in areas that are not publicly accessible.		105 mL/ha	
Light to medium vegetation	Mosquito adults	60 mL/ha	
Medium to heavy vegetation - only in areas that are not publicly accessible.		105 mL/ha	
Polluted water impoundments	Mosquitoes (larvae and adults)	2mL/ 10,000 L of water or 20 mL/100 m ³ of water.	

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HORTICULTURAL CROPS:

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
APPLES, PEARS	San Jose Scale	Qld, NSW, ACT, SA, WA	100 mL/100 L water	14 days (Harvest)	Dormant Period: Add 2% Winter Oil. Apply as late as possible ensuring thorough spray coverage. Growing Period: Apply to coincide with crawler activity (mid-November and later). Ensure thorough coverage.
	Woolly aphid				Apply as aphid build-up is first noticed ensuring spray coverage is thorough.
	Wingless Grasshopper	NSW, ACT only	500 mL/ha in 100-150 L water		Spray ground areas infested with hoppers. Also apply as a barrier across the line of advance as crops are invaded.
BANANAS	Banana Scab Moth	Qld only	Aerial: 1 or 2.0 L/ha use a minimum of 10 L/ha of water, or 200 mL/100 L water use a minimum of 500 L/ha water	14 days (Harvest)	Apply as flowers first appear and repeat as required until fingers are exposed. Use higher rate in wet weather or under heavy insect pressure.
	Banana Weevil Borer	Qld, NSW, only	1 or 1.8 L in 100 L water		Sub-Tropical Areas: Use high rate for annual control of borers. Tropical Areas: Use high rate in Sept-Nov for initial spray and follow with low rate in February-April should insect numbers warrant a second application. After trash removal, apply 500-700 mL of spray mixture to lower 30 cm of the butt and surrounding soil within a 30 cm radius. Ensure thorough coverage of butt and suckers.
	Caterpillars	NSW only	200 mL/100 L water		Apply from first appearance of flower bells and repeat as required until fingers are exposed. Ground application only. DO NOT apply by air.
CARROTS	Light brown apple moth	NSW, ACT only	500 or 700 mL/ha	-	Apply when moths are first detected. Repeat at higher rate if re-infested.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
CITRUS	California Red Scale	NSW, ACT, Vic, SA, WA, only	100 mL alone or 50 mL + 1 L miscible summer spraying oil	14 days (Harvest)	Application period November-March. Two sprays may be required for control under heavy infestations. Apply through a high volume sprayer to the point of run-off. DO NOT use in integrated pest control programs.
		Qld only	100 mL + 1 L miscible summer spraying oil		
	Wingless Grasshopper	NSW, ACT, SA, Vic, Tas only	500 mL/ha in 100-150 L water		Spray areas infested with hoppers. Also apply as a barrier across the line of advance as crops are invaded.
COLE CROPS: Broccoli, Brussels sprouts, Cabbage, Cauliflower	Cabbage moth, Cabbage white butterfly, Cabbage aphid, Cluster caterpillar, Cabbage cluster caterpillar	NSW, ACT, SA, Vic, WA only	1.5 or 2.0 L/ha	5 days (Harvest) 2 days (Grazing)	Spray at 10-14 day intervals using the higher rate under heavy pest pressure. Use 1000 L/ha of water on larger plants. For improved coverage, add a non-ionic wetting agent as recommended.
	Corn earworm, Native budworm	Qld only	150 mL/100 L water, or 1.5 L/ha		Apply when pests first appear. Use 1000 L/ha of water on larger plants.
	Corn earworm	NSW, ACT, Vic, SA, WA only	1.5 or 2.0 L/ha or 150 or 200 mL/100 L water	5 days (Harvest)	Apply when pests first appear. Use 1000 L/ha of water on larger plants.
	Native budworm	NSW, ACT, VIC, SA, Tas, WA only	1.5 or 2.0 L/ha or 150 or 200 mL/100 L water		Apply at 10 day intervals. Use high rate under heavy pest pressure. Large plants: use 1000 L/ha.
	Wingless grasshopper	NSW, ACT, Vic, Tas, SA only	500 mL/ha or 50 mL/100 L water		Spray areas of crop infested with grasshoppers. Also apply as a barrier across line of advance, when grasshoppers are invading the crop.
	Redlegged earth mite, Blue oat mite	NSW, ACT only	140 or 300 mL/ha		Use higher rate for severe infestation. Headlands and vegetation surrounding the crop may also need to be sprayed.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
GRAPES	Grape Vine Scale	Qld, NSW, ACT, WA, SA, Tas only	100 mL/100 L water, or 50 mL/100 L water + 1 L Winter Oil	14 days (Harvest)	Apply as a dormant spray following pruning (July).
	Grape Vine Moth		50 mL/100 L water, or 500 mL/ha		Apply initial spray just after berry set (early October). Repeat application as required.
	Light Brown Apple Moth	All States			
PINEAPPLES	Pineapple mealy bug, Ants	Qld only	50 or 100 mL/100 L water	-	Use in a minimum of 3000 L/ha of water. Apply when first seen and repeat in 90 days or when required. The higher rate should be used when heavy pest pressure exists.
POTATOES	African black beetle	NSW, ACT only	3 or 6.0 L/ha pre-plant	-	Ensure thorough incorporation to a depth of 15 cm. The higher rate should be used when heavy pest pressure exists.
			900 mL/ha at tuber initiation		Apply as a second spray as bands on either side of plants at final hilling-up. Ensure good incorporation of the spray immediately into the soil in the hill.
		WA only	6.0 L/ha pre-plant, 900 mL/ha at tuber initiation	-	Pre-Plant: Cultivate into the soil immediately following application, just prior to planting. Post-Plant: Apply at hilling or 7 weeks after planting. Ensure the product is covered with soil.
	White fringed weevil	NSW, ACT, Vic, WA only	6.0 L/ha	-	Apply pre-plant and incorporate into the soil immediately after application.
		WA only	1.0 L/ha		Apply at hilling-up or 7 weeks after planting as a follow-up to pre-plant incorporation.
	Wireworm	Vic only	6.0 L/ha	-	Apply as a border spray. Spray the soil prior to planting and incorporate immediately after application.
STONE FRUIT	San Jose scale	Qld only	100 mL/100 L water	14 days (Harvest)	Dormant Period: Add 2% Winter Oil. Apply as late as possible ensuring thorough spray coverage. Growing Period: Apply to coincide with crawler activity (mid-November and later). Ensure thorough spray coverage.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
TOMATOES	Green peach aphid	Qld, Vic, Tas, SA, WA only	1.0 L/ha or 100 mL/100 L water	3 days (Harvest)	Apply as aphid build-up is first noticed. Use 1000 L/ha of water on larger plants.
	Green vegetable bug	Tas, SA, WA only	1.5 L/ha or 100 mL/100 L water		Apply at first sign of bug activity.
	Native budworm	Tas only	1.5-2.0 L/ha or 150-200 mL/100 L water		Apply from flowering on a 7-10 day schedule. Use the higher rate under heavy insect pressure.
	Tomato grub	NSW, ACT, Tas, Qld, Vic, WA only			
	Wireworm, False wireworm	Qld only	5.0 L/ha		Larvae: Apply to the planting region at or prior to planting when wireworm numbers become significant. Adults: Apply as populations and damage indicate once seedlings are established.
VEGETABLES* *Includes: Asparagus, Beans, Beetroot, Broccoli, Brussels sprouts, Cabbage, Cauliflower, Capsicums, Carrots, Celery, Cucurbits, Eggplants, Onions, Peas, Potatoes, Radishes, Rhubarb, Shallots, Sweet potatoes, Tomatoes and Turnips.	Cutworm in young plants	All States	700 mL/ha	Asparagus, Celery - 14 days Cucurbits, Cole Crops - 5 days (Harvest) Tomatoes - 3 days (Harvest)	Apply immediately infestation is observed. Use 70 mL/100 L of water and spray 1000 L/ha to ensure thorough coverage. Compensate by increasing the concentration accordingly if using less than 1000 L/ha. Apply to cover soil at least 20 cm each side of the plant row. Repeat sprays as necessary.
	Wingless Grasshopper	Vic, Tas only	500 mL/ha in 100-150 L water		Spray areas of crop infested with hoppers. Also apply as a barrier across the line of advance as crop is invaded.

FIELD CROPS AND PASTURE

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS	
CEREALS (for harvest) Pasture, Forage crops	Armyworm Common and Southern	All States	700 or 900 mL/ha	10 days (Harvest) 2 days (Grazing)	When infestation is widespread, spray the total crop area. When pests are moving as an army, spray a broad strip over and in advance of the infestation. Use higher rate when larvae more than 3 cm long and repeat as required.	
	Blue oat mite	All States	70 mL/ha		Spray as pests appear in large numbers, 3-6 weeks after autumn rain.	
	Lucerne flea	NSW, ACT, VIC, Tas, SA only			Avoid spraying if rain is imminent or pests are sheltering. Crop or pasture should have at least 2.5 cm of cover.	
	Redlegged earth mite		140 mL/ha		Repeat as necessary.	
	Pasture webworm	NSW, ACT, Vic, Tas, SA only			700 mL/ha	Spray at first sign of damage. If applied by ground, use a ground-rig boom or mister.
			WA only		300 mL/ha	Or apply by air.
	Cutworm	NSW, ACT, Qld, Tas, WA only			900 mL/ha	Apply in a minimum of 100 L of water per hectare immediately infestation is observed.
			Vic, SA only		700 mL/ha	Repeat treatment as necessary.
	Australian plague locust	Qld, NSW, ACT, WA only			350 mL/ha	Adults: Spray areas infested. Hoppers: Spray infested crop areas and as a band across the line of advance and onto marching hoppers. Spray until all hoppers have been contacted.
			SA only		560 mL/ha	
			Vic only		Adults: 560 mL/ha Hoppers: 350 mL/ha	
	Spur-throated locust	Qld, NSW, ACT, Vic, WA only			1.25 or 1.5 L/ha	Spray crop areas infested by locusts as well as trees and roosting sites.
Migratory locust	Qld only		350 mL/ha	For late stage hoppers and adults, use the higher rate.		

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
CEREALS (for harvest) Pasture, Forage crops (cont)	Wingless Grasshopper	NSW, ACT, SA, Vic, Tas only	500 mL/ha	10 days (Harvest) 2 days (Grazing)	Spray areas of crop infested with hoppers. Also apply as a barrier across the line of advance as crop is invaded.
COTTON	Armyworm Common and Southern	Qld, NSW only	700 or 900 mL/ha	4 weeks (harvest) 4 weeks (Grazing)	When infestation is widespread, spray the total crop area. When pests are moving as an army, spray a broad strip over and in advance of the infestation. Use higher rate when larvae are more than 3 cm long and re-treat as required.
	Cotton aphid		300 or 400 mL/ha		Spray when infestation is first noticed and repeat as required.
	Cutworm in young plants		900 mL in 100 L water/ha min.	Apply immediately infestation is observed. Repeat sprays as necessary.	
	Wireworm, False wireworm	Qld, NSW only	5 or 15 mL/100 m row, OR 500 mL or 1.5 L/ha for row spacing of 1 metre		Using a minimum spray volume of 20 L/ha, apply as a band spray at planting into the open furrow. By using a nozzle directly behind the planting tyne, spray the entire furrow width (at least 10 cm).
	Wingless Grasshopper		500 mL/ha	Spray areas of crop infested with hoppers. Also apply as a barrier across the line of advance as crop is invaded.	
	Spur-throated locust		1.25 or 1.50 L/ha	Spray crop areas infested by locusts as well as trees and roosting sites.	
	Migratory locust	Qld only	350 mL/ha		For late stage hoppers and adults, use the higher rate.
HOPS	Armyworm Common and Southern, Light Brown Apple Moth	Vic, Tas only	160 mL/100 L water	-	Spray on first appearance of pests and repeat as numbers indicate.
LUCERNE	Cutworm in young plants	Qld, NSW, ACT, Tas, WA only	900 mL/ha	2 days (Grazing)	Apply immediately infestation is observed. Repeat treatment as necessary. Apply in minimum 100 L water per hectare.
	Lucerne leaf roller	Qld, NSW, ACT only	300 or 400 mL/ha		Apply when pests first appear. Use the higher rate under heavy insect pressure or if larvae exceed 1.5 cm in length.
	Web spinner caterpillar		700 mL/ha		Spray as pests appear.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
LUCERNE AND MEDICS IN PASTURE AND FORAGE CROPS	Blue green aphid	NSW, ACT only	200 or 300 mL/ha	2 days (Grazing)	Spray when pests first appear. Use the higher rate when large numbers present. Seedling lucerne, medics: Spray when 1-2 aphids are observed per plant.
	Spotted Alfalfa aphid	Qld, Vic, SA, Tas, WA only			
	Pea aphid	Qld, Vic, NSW, ACT, Tas, SA only			
	Sitona weevil	NSW, ACT, Vic, SA, Tas, WA only	350 mL/ha		Spray when adults appear in damaging numbers from October to December or in Autumn.
MAIZE, SUNFLOWER	Wireworm, False wireworm	Qld, NSW, ACT only	5 or 15 mL/100 m row, OR 500 mL or 1.5 L/ha for row spacing of 1 metre	2 days (Grazing)	Using a minimum spray volume of 30-70 L/ha, apply as a band spray at planting into the open furrow. By using a nozzle directly behind the planting tyne, spray the entire furrow width (at least 10 cm).
OILSEED CROPS (including Cotton, Mustard, Linseed, Peanut, Poppy, Rape, Safflower, Sunflower)	Cutworm	Qld, NSW, ACT, Tas only	900 mL/ha	2 days (Grazing) Cotton: 4 weeks (grazing and harvest)	Apply in a minimum 100 L of water per hectare immediately infestation is observed. Repeat treatment as necessary.
		Vic, SA, WA only	700 mL/ha		
	Wingless Grasshopper	NSW, ACT, Vic, Tas, SA only	500 mL/ha in 100-150 L water		Spray areas of crop infested with hoppers. Also apply as a barrier across the line of advance as crop is invaded.
	Blue oat mite, Redlegged earth mite	NSW, ACT only	140 or 300 mL/ha		Apply as ground spray immediately prior to seedling emergence using sufficient water to give good coverage. For severe infestations, also spray headlands and surrounding vegetation prior to emergence.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
CANOLA	False Wireworm, Wireworms	Qld only	1.0 or 1.5 L/ha	2 days (Grazing)	Apply as a broadcast application and incorporate in the top 5 cm of soil. Use at the higher rate for severe infestations. See General Instructions on soil application.
SAFFLOWER	False Wireworm, Wireworms	Qld only	0.5 to 1.5 L/ha for row spacing of 1 m OR 5 to 15 mL/100 m of row	2 days (Grazing)	Apply as in-furrow band spray at least 10 cm wide using a nozzle directly behind the planting tyne. Use higher rate for heavy infestations. Apply with 30-70 L water per hectare.
SUNFLOWER		Qld, NSW, ACT only			
RICE	Bloodworm	NSW only	60 or 150 mL/ha	10 days (Harvest)	Use higher rate when water is more than 15 cm or amount of decaying plant material is high.
SORGHUM Do NOT use on Sugar Drip or Alpha. Check new varieties before application	Armyworm Common and Southern	Qld, NSW, ACT only	700 or 900 mL/ha	2 days (Harvest) 2 days (Grazing)	Note: DO NOT USE on Sugar Drip or Alpha sorghum. Seek seed company advice prior to application to newly released hybrid varieties. When infestation is widespread, spray the total crop area. When pests are moving as an army, spray a broad strip over and in advance of the infestation. Use higher rate when larvae are more than 3 cm long and re-treat as required. Adults: Spray areas infested. Hoppers: After spraying a swath in front of the band, spray along the dense marching front until all hoppers have been contacted. Spray when pests reach damaging numbers. Apply in a minimum of 100 L/ha of water immediately infestation is observed. Repeat treatment as necessary. Check crop regularly, early morning preferably. From first head emergence to pollen shedding, spray when 1-2 midge present per head. Under constant attack re-spray intervals may be 5 days or less. Spray crop areas infested by locusts as well as trees and roosting sites. For late stage hoppers and adults, use the higher rate.
	Australian plague locust		350 mL/ha		
	Corn aphid		500 mL/ha		
	Cutworm		900 mL/ha		
	Sorghum midge		500 mL/ha		
	Spur-throated locust		1.25 or 1.5 L/ha		
	Migratory locust		Qld only	350 mL/ha	
	Wireworm, False wireworm	Qld, NSW, ACT only	5 or 15 mL/100 m row, OR 500 mL or 1.5 L/ha for row spacing of 1 metre		

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
SUGAR CANE	Armyworm Common and Southern	Qld only	700 or 900 mL/ha	7 days (Harvest) 2 days (Grazing)	When infestation is widespread, spray the total crop area. When pests are moving as an army, spray a broad strip over and in advance of the infestation. Use higher rate when larvae are more than 3 cm long and re-treat as required.
	Spur-throated locust		1.25 or 1.5 L/ha		Spray areas of crop infested with locusts. Apply spray to trees or roosting sites to control swarming adult locusts. Late stage hoppers and adults: Use higher rate.
	Australian plague locust, Migratory locust		350 mL/ha		Adults: Spray areas infested with locusts. Hoppers: Spray infested crop areas and as a band across the line of advance and onto marching hoppers. Spray until all hoppers have been contacted.
	Symphylids		2.0 L/ha		Spray areas of crop, trees and roosting sites infested with locusts.
	Sugar Cane wireworm		Qld, NSW only		1.5 L/ha
	African black beetle, Black beetle	NSW only	1.5 L/ha		Apply at planting or ratooning. Apply as a low pressure (less than 35 kPa) or gravity feed spray onto the plant sett and adjacent soil through a nozzle placed above the planter boards. Repeat treatment within 12 weeks of planting if black beetles re-occur.

ORNAMENTALS, TURF AND INDUSTRIAL USES

CROP	PEST	STATE	RATE	CRITICAL COMMENTS
POTTED ORNAMENTALS (Commercial scale nursery production/ commercial scale horticultural use only) Not for use in residential/home garden/public space potted ornamentals	Scarab Beetles - Larvae	Qld only	20 to 40 mL/100 L water	Apply mixture as a pot drench and water through. Drenching may cause root damage and should be tested on a few plants before widespread treatment.
TURF (Turf farms only. Not for use in residential/home garden/public space turf)	Funnel Ant	Qld, NSW, ACT only	2.0 L/ha or 5 mL/5 L spot spray	For spot spraying, apply 30 mL spray to each mound. In areas of high density, a repeat application may be necessary to ensure thorough mound coverage. DO NOT GRAZE TREATED TURF OR FEED TREATED GRASS CLIPPINGS TO ANIMALS.
	African Black Beetle	Qld, NSW, ACT, Vic, WA only	6.0 L/ha or 60 mL/100 m ²	Apply to lawn when pests appear. Water in immediately after application.
	Argentine Stem Weevil	NSW, ACT, Vic, Tas, SA, WA only	4.0 L/ha or 40 mL/100 m ²	Lightly water following application. Apply as late in the day as possible.
	Blackheaded Pasture Cockchafer		900 mL/ha or 9 mL/100 m ²	Use sufficient water to give even coverage. Apply as late in the day as possible.
	Brown Pasture Looper		700 mL/ha or 7 mL/100 m ²	Apply when pests first appear.
	Pasture Webworm			Spray at first sign of damage. Apply with ground-rig boom or mister. Apply as late in the day as possible.
	Lawn Armyworm	Qld, NSW, ACT, Vic, SA, WA only	700 mL/ha or 7 mL/100 m ²	Spray over total lawn area when infestation is present. When pests are moving, treat strip over and in advance of infestation. Apply follow-up treatments as required.
	Sod Webworm	All States		Apply as soon as pests appear. Repeat as required.
	Underground Grass Grub	NSW, ACT, Vic, SA, WA only	900 mL/ha or 9 mL/100 m ²	Apply when caterpillars are actively feeding. Spray before noticeable damage has occurred. Apply as late in the day as possible.
Crickets	Qld only	20 mL/20 L	Apply as required preferably late in the day.	

COMMERCIAL AND INDUSTRIAL AREAS - must not be publicly accessible.	Argentine Ants	All States	1.0 L/100 L water	Spray ant tracks, nests and other active areas. Apply to paths in continuous 30 cm bands. Apply to base of buildings, walls, fences, rock work, trunks of trees and shrubs and other hard surfaces to height of 30 cm. In WA, all occurrences to be reported to Dept. Agriculture.
DUBOISIA	Cutworms	Qld only	900 mL/100 L water	Apply at planting out.

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

