



# OUT OF BOUNDS - Liquid

a division of Amgrow



## Out of Bounds Liquid

Out of Bounds Termiticide & Insecticide (Group 3A)

Active Constituent: 100 g/L Bifenthrin

Out of Bounds is a popular, highly effective broad spectrum insecticide used for the protection of structures from termite damage and for the control of a range of other outdoor domestic pests. Out of Bounds also controls various insect and mite pests in a variety of crops, including turf.



### Features & Benefits of Out of Bounds

- ✓ Fast knockdown contact insecticide with long lasting residual properties
- ✓ When soil applied the active binds strongly to soil and has a low risk of leaching with rainfall
- ✓ Permits available for capsicum/tomato (PER13567) for fruit fly, for raspberry/blueberry (PER14448) for monolepta beetle, thrips and elephant weevil, for pineapple (PER14658) for symphyliids
- ✓ Cost effective long lasting insecticide with low application rates required for good results



Damage From Banana Rust Thrips

### Product Characteristics

Colour	Brown Liquid
SG	0.93

### Pack Sizes

Available in 1L, 5 L and 20 L pack.



Cotton Leaf Damage From Two Spotted Mite



# OUT OF BOUNDS - Liquid

a division of Amgrow

## Directions for application (Refer to product label for more detailed instructions)

### RESTRAINTS:

DO NOT use as a foliar spray in banana plantations, or in situations and orchards where mite predators are established and providing effective mite control.

DO NOT apply as a foliar treatment if rainfall is expected before spray deposits dry on leaf surfaces.

DO NOT apply to bananas by aircraft.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Bananas	Banana Weevil Borer ( <i>Cosmopolites sordidus</i> ), Banana Rust Thrips ( <i>Chaetanaphothrips signipennis</i> )	Qld, NSW, WA, NT only	<u>Seasonal Program Stool Treatment Method</u> 250-330mL /100L twice per year OR 660mL /100L once per year <u>Band Treatment Method</u> 250mL /100L twice per year <u>Monitoring Program Stool Treatment Method</u> 330mL/100L	1 day	<b>Seasonal Program</b> <u>Twice per year Timing:</u> Apply in October/November (Spring/early Summer) and March/April (late Summer/Autumn). Use the higher rate (concentration) when borer pressure or damage is high. <u>Once per year Timing:</u> Apply in October/November OR March/April. <u>Monitoring Program:</u> Monitor weevil borer populations carefully by trap counts and/or corn damage ratings, beginning in September when pest activity is on the increase and continue until April. Apply treatment when Banana Weevil Borers reach or exceed acceptable threshold levels. Monitor borer control after application and re-treatment as required. <u>Banana Weevil Borer:</u> Application should be made after rain or irrigation during periods of high adult borer. <u>Banana Rust Thrips:</u> Application against Banana Weevil Borer will give coincident rust thrips control, particularly when application is made when thrips activity is on the increase usually beginning September and into the Summer months. <b>APPLICATION METHOD</b> <u>Stool Treatment Application:</u> Remove trash from the base of stools and apply 500-750mL of spray solution to each stool, depending on stool size. Treat the bottom 30cm of each stool as well as the soil in a 30cm band around each stool, ensuring thorough treatment of both butt(s) and follower(s). Use the lower spray volume of 500mL on small stools less than 50cm across the entire base. <u>Band Treatment Application:</u> Apply as a band application with a side delivery boom and offset nozzles on both sides of the row with the spray pattern positioned to spray 30cm of soil on either side of the row and 30cm in height.
	Strawberry Spider Mite ( <i>Tetranychus lambi</i> )	Qld, WA only	40mL/100L	8 days	Monitor mite population on old leaves particularly during hot dry conditions. Apply Out of Bounds Insecticide & Termiticide as a preventative rather than a curative treatment before damage occurs, and before mite numbers build up to damaging levels. Follow up applications may be required at 10-14 day intervals. Thorough coverage of the low leaf surface is essential to ensure good control. Use a total spray volume of 300-500L/ha.
Fababeans, Subterranean clover, Clover, Barley, Canola, Field Peas, Lupins, Lucerne & Wheat	Redlegged Earth Mite ( <i>Halotydeus Destructor</i> ), Brown Pasture Looper ( <i>Ciampa arietaria</i> )	All States	50-100mL/ha	4 weeks G	Apply as a broadcast ground rig application in a total water volume of 50-200L/ha or by air in a minimum total water volume of 20L/ha. Apply to bare soil after conventional cultivation and sowing or onto well grazed or sprayed pasture after direct drilling. Treat infested paddocks after sowing and before or soon after seedling emergence. Use the higher rate on heavier infestations and for longer residual protection. Out of Bounds Insecticide & Termiticide is compatible with some herbicides. See compatibility statement for details.
	Blue Oat Mite ( <i>Penthaleus major</i> ), Pasture Webworm		100mL/ha		
	Bryobia Mites ( <i>Bryobia spp.</i> )		200mL/ha		
Canola	Vegetable Weevil ( <i>Listroderes</i> )	All States	100-200mL/ha	4 weeks G	<b>CRITICAL COMMENTS:</b> Use the 100mL rate when pest pressure is low. Monitor adjacent habitat and edges of the field for the presence of Vegetable Weevil prior to making a decision whether to spray.



# OUT OF BOUNDS - Liquid

a division of Amgrow

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Peaches, Nectarines, Plums, Apricots	Carpophilus Beetles ( <i>Carpophilus spp.</i> )	All States	<b>Dilute spraying</b> 50mL/100L <b>Concentrate spraying</b> Refer to the mixing/ application section	1 day	Monitor stone fruit orchards for Carpophilus Beetle as fruit approach maturity and become susceptible to attack. Apply Out of Bounds Insecticide & Termiticide as a dilute spray before beetles reach damaging levels. Apply to the foliage and fruit of the trees. Continue to monitor beetle numbers and if necessary reapply Out of Bounds Insecticide & Termiticide up to 1 day before harvest or use another insecticide registered for this purpose. Apply no more than 2 applications per season. There must be a minimum of 10 days between the re-treatment and the initial application. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. DO NOT use rates greater than 100mL/100L of water when using concentrate spraying. Cultural control methods (eg. Destruction of fallen fruit by mulching) should be used to prevent excessive build up of Carpophilus Beetle.
Citrus	Leafeating Weevil ( <i>Eutinophaea bicristata</i> Lea)	All States	Pre-emergence program 12.5 or 25mL/tree Post-emergence monitoring program 6mL/ tree	-	Apply as a high volume band application in a 1.5 to 2 metres wide swath, to the ground, both sides of the row, under each tree. Aim to apply a total spray volume of 5 to 10L/tree (eg. At 250 trees/ha = 1250 to 2500 L/ha). <b>Pre-emergence program:</b> Apply just prior to, or at the first sign of major beetle emergence in mid-October. Use the higher rate in blocks with a history of high beetle numbers or when longer residual control is required. <b>Post-emergence monitoring program:</b> Apply at peak beetle emergence in October/November as indicated by field monitoring. (Refer to monitoring statement on label). Follow up treatment may be necessary based on a threshold of 25 beetles per 10 sites per orchard in consecutive counts 1-2 weeks apart.
Cotton	Native Budworm ( <i>Helicoverpa punctigera</i> ), Cotton Bollworm ( <i>Helicoverpa armigera</i> ), Two Spotted Mite ( <i>Tetranychus urticae</i> ), Green Mirid ( <i>Creontiades dilutes</i> ), Apple Dimpling Bug ( <i>Campylomma Liebkecht</i> )	Qld, NSW, WA only	600-800mL/ha	14 days H DO NOT GRAZE OR CUT FOR  STOCK FEED. DO NOT FEED COTTON TRASH TO LIVESTOCK.	Apply as indicated by field checks. Use the higher rate when pest pressure is high, conditions favour pest development and when increased residual protection is required. <b>Budworm and Bollworm:</b> Applications should be limited to coincide with egg hatch and when small larvae up to 5mm are present.  DO NOT apply this product to <i>Helicoverpa armigera</i> larvae larger than 5mm in length. <b>Two Spotted Mite:</b> Applications against <i>Helicoverpa</i> spp. Will give good control of coincident two spotted mite, particularly when applied on low mite population (around 10% leaf infestation). If conditions continue to favour mite development a second application may be required 14-20 days later. <b>Green Mirid &amp; Apple Dimpling Bug:</b> Apply at recommended threshold levels as indicated by field checks. Use the higher rate for increased pest pressure and longer residual protection.
	False Wireworm ( <i>Pterohlaeus alternates</i> ), Sugarcane Worm ( <i>Agrypnus variabilis</i> )		375mL/ha <sup>1</sup> Or 3.8mL/100m of row		
Grapes	Fig Longicorn ( <i>Acalolepta vastator</i> )	NSW, ACT, WA only	1000mL/100L	-	The application MUST be made at late dormancy after pruning and before bud burst. Apply a single high volume spray, with nozzles directing the spray solution to the trunk and cordons (arms) of grape vines to achieve thorough wetting of the bark. Total spray volume should be about 500mL/ vine achieved by hand application.
Lucerne seed crops	Native Budworm ( <i>Helicoverpa punctigera</i> )	All States	400-600mL/ha	-	DO NOT treat lucerne seed crops for alfalfa sprout production. Apply as indicated by field checks after the commencement of flowering. Use the higher rate when pest pressure is high, conditions favour pest development and when increased residual protection is required. <b>Native Budworm:</b> Applications should be timed to coincide with egg hatch and when small larvae up to 5mm are present.



# OUT OF BOUNDS - Liquid

a division of Amgrow

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Navy Beans	Native Budworm, ( <i>Helicoverpa punctigera</i> ) Corn Earworm ( <i>Helicoverpa armigera</i> )	All States	600-800mL/ha	14 days H and G	Apply as indicated by field checks from flowering onwards. Use the higher rate when pest pressure is high, conditions favour pest development and when increased residual protection is required. <b>Budworm and Earworm:</b> Applications should be timed to coincide with egg hatch and when small larvae up to 5mm are present. <b>DONOT</b> apply this product to <i>Helicoverpa</i> (= <i>Heliothis</i> ) <i>armigera</i> larvae larger than 5mm in length.
Pears	Longtailed Mealybug ( <i>Pseudococcus longispinus</i> )	Vic, WA only	25mL/100L plus the registered rate of a non-ionic surfactant	14 days	Examine the wood for the presence of overwintering Longtailed Mealy Bugs but do not spray until large numbers of young nymphs emerge in Spring. Apply this mixture to near the point of run-off to all above ground parts of the tree between green tip to commencement of flowering. <b>DO NOT</b> spray after flowering has commenced.
Sugar cane	Sugarcane Wireworm ( <i>Agrypnus spp.</i> )	Qld, NSW, WA only	375mL/ha <sup>1</sup> or 5.6mL/100m of row	-	Apply as a spray into the furrow at planting. Use a spray nozzle which will deliver a coarse spray in a total volume of 60-100L/ha in a band 20-30cm wide over the base of the furrow on top of the setts and before covering soil is brought in by tynes. <sup>1</sup> The rate is based on a 1.5m row spacing. If row spacing varies from 1.5m then apply at the use rate according to mL/100m of row.
Tomato	Native Budworm ( <i>Helicoverpa punctigera</i> ), Corn Earworm ( <i>Helicoverpa armigera</i> ), Two spotted Mite ( <i>Tetranychus urticae</i> ), Tomato Russet Mite ( <i>Aculops lycopersici</i> )	All States	<b>High Volume</b> 40-60mL/10L Or <b>Low Volume</b> 600mL/ha	1 day	<b>DONOT</b> use low volume ground or air application on trellis tomatoes. <b>Crop Monitoring Program:</b> <i>Helicoverpa</i> spp.: Apply as indicated by field checks. Applications should be timed to coincide with egg hatch and when small larvae up to 5mm are present. <b>DONOT</b> apply this product to <i>Helicoverpa</i> (= <i>Heliothis</i> ) <i>armigera</i> larvae larger than 5mm in length. <b>Mites:</b> Applications against <i>Helicoverpa</i> spp. Will give good control of coincident Mites, particularly when applied on low mite populations. If conditions continue to favour mite development, a second application may be required 14-20 days later. <b>Schedule Spray Program:</b> If fields are not checked during pest infestation periods, apply on a 7-10 day alternating program with a non-pyrethroid insecticide. Use the higher rate (high volume application) and shorter interval when pest infestation is more severe and when increased residual protection is required. <b>DONOT</b> apply this product to <i>Helicoverpa armigera</i> larvae larger than 5mm in length.
	Whitefly ( <i>Trialeurodes vaporariorum</i> )		30mL/100L water		Apply as indicated by pest incidence and repeat as necessary. Use a total spray volume of 2500L/ha.
Turf (eg Lawns, commercial turf farms, parks, recreational areas, bowling greens, sports fields)	Lawn armyworm ( <i>Spodoptera maurita</i> ) Sod webworm ( <i>Herpetogramma licarsalis</i> )		1.2L/ha (12 ml/100m <sup>2</sup> )		Mix Out of Bounds Insecticide & Termiticide in water and apply evenly over the area to be treated using spray application equipment. Use a minimum total water volume of at least 200L/ha (2L/100m <sup>2</sup> ). To ensure optimum control, irrigate the treated area with up to 4 mm of water soon after application. Inspect treated areas for continuing activity. Reapply as required. Where rate range is indicated use lower rates under low insect pressure and higher rates under higher insect pest pressure. Apply after mowing to minimise loss of insecticide in clippings. <b>DONOT</b> apply to soils if excessively wet or immediately after heavy rain.
	Argentine stem weevil adults ( <i>Listronotus bonariensis</i> ) Billbug adults ( <i>Senophorus</i> sp)		1.2-2.4L/ha (12-24 ml/100m <sup>2</sup> )		
	African black Beetle adults ( <i>Heteronychus arator</i> )		2.4-3.6L/ha (24-36 ml/100m <sup>2</sup> )		
	Black ant, Coastal brown ant, Funnel ant, Meat ant, Sugar ant and Stinging ant only		1.2-4.4L/ha (12-44 ml/100 m <sup>2</sup> )		Mix Out of Bounds Insecticide & Termiticide in water and apply evenly over the area to be treated using spray application equipment. Apply to areas where ants are active. Where possible spray directly into the nests. Use the low rate for maintenance treatments or to control light infestations and the high rate for heavy infestations and maximum residual control. The elimination of funnel ants from a particular site will generally require more than one application. Initial application should be broadcast over affected areas. As the initial numbers of active colonies is reduced, application should shift to targeting active mounds. Apply spray directly to the mound and in the area immediately surrounding (300 mm radius). To aid in even coverage a minimum spray volume of at least 200L/ha (2L/100m <sup>2</sup> ) is recommended.



# OUT OF BOUNDS - Liquid

a division of Amgrow

## DIRECTIONS FOR USE – PEST CONTROL USES

**Restrictions:** DO NOT use this product at less than indicated label rates

DO NOT apply to soils if excessively wet or immediately after heavy rain to avoid run-off of the chemical.

PEST	SITUATION	STATE	RATE	CRITICAL COMMENTS
Spiders	External Areas & Surrounds of Domestic, Commercial, Public & Industrial buildings and structures	All states	25-50mL/10L	Use the higher rate in situations where pest pressure is high, when rapid knockdown and/or maximum residual protection is desired. Pay particular attention to protected dark areas such as cracks and crevices, under floors, eaves and other known hiding or resting places. For overall band surface spray, apply as a coarse, low pressure surface spray to areas where spiders hide, frequent and rest. Spray to the point of run-off using around 5 L of spray mixture per 100 m <sup>2</sup> and ensuring thorough coverage of the treated surfaces. In an outdoor situation, For crack and crevice treatment use an appropriate solid stream nozzle. For maximum spider control use a two part treatment. 1. Crack and crevice. 2. Overall band spray of surfaces.
Papernest Wasps			50mL/10L	Apply prepared emulsion to the point of runoff directly to the papernest ensuring thorough and even coverage. When all adult wasps have been knocked-down the nest may be safely removed from the structure.
Ants, Cockroaches, mosquitoes, fleas, flies, ticks (excluding the paralysis tick <i>Ixodes holocyclus</i> ) (Adults & Nymphs)			50-100mL /10L	On non-porous surfaces apply as a coarse spray at the rate of 1L of emulsion per 20m <sup>2</sup> . When treating non-porous surfaces do not exceed the point of runoff. On porous surfaces or use through power equipment, spray the rate of 1L of emulsion per 10m <sup>2</sup> . When treating porous surfaces do not exceed the point of runoff. Use the higher rate in situations where pest pressure is high, when rapid knockdown and/or maximum residual protection is desired. The lower rate may be used for follow up treatments. To control ants apply to trails and nests. Repeat as necessary. To control fleas and ticks apply prepared emulsion to outside surfaces of buildings and surrounds including but not limited to foundation, verandas, window frames, eaves, patios, garages, pet housing, soil, turf, trunks of woody ornamentals or other areas where pests congregate or have been seen. To control flies and mosquitoes apply prepared emulsion to surfaces where insects rest or harbour. Reapply as necessary. For perimeter treatments apply the prepared emulsion to a band of soil or vegetation two to three metres wide around and adjacent to the structure. Also treat the foundation of the structure to a height of approximately one metre. Use a spray volume 5 to 10 L per 100m <sup>2</sup> . Higher volumes of water may be needed if organic matter is present or foliage is dense.

**Table A: Out of Bounds Insecticide & Termiticide use rates for control of SUBTERRANEAN TERMITES**

All Areas SOUTH of the tropic of Capricorn (except TAS)			All Areas NORTH of the tropic of Capricorn		
Situation	Rate	Expected Protection Period <sup>1</sup>	Situation	Rate	Expected Protection Period <sup>1</sup>
Perimeter Barriers for new and existing buildings	1.0L/100L	At least 10 years	Perimeter Barriers for new and existing buildings	1.5 L/100 L	Up to 5 years
	500 ml/100 L	10 years		1.0 L/100 L	Up to 4 years
Post-construction barriers Under slabs and under suspended floors with less than 400 mm crawl space	1.0L/100L	At least 10 years	Post-construction barriers Under slabs and under suspended floors with less than 400 mm crawl space	1.5 L/100 L	Up to 5 years
	500 ml/100 L	10 years		1.0 L/100 L	Up to 4 years
Protection of Poles & Fence Posts	500 ml/100 L	10 years	Protection of Poles & Fence Posts	1.5 L/100 L	Up to 5 years
				1.0 L/100 L	Up to 4 years
Nest Eradication	500 ml/100 L	Not Applicable	Nest Eradication	500 ml/100 L	Not Applicable

Note: The actual protection period will depend on the termite hazard, climate, soil, conditions and rate of termiticide used.

<sup>1</sup>The length of the protection period is determined by a variety of factors including termite hazard, climate, soil, conditions and rate of termiticide applied. These factors should be taken into consideration when evaluating the need for treatment. Annual inspections by a competent Pest Control Operator are recommended to determine the need for further termite management options. Under high termite challenge, more frequent inspections are advised.



# OUT OF BOUNDS - *Liquid*

a division of Amgrow

**TABLE B: CRITICAL COMMENTS for use against SUBTERRANEAN TERMITES**

Situations	Critical Comments
Perimeter Barriers For existing buildings	<ul style="list-style-type: none"> <li>Perimeter barriers (both horizontal and vertical, external and where required, internal or sub-floor) are an essential part of termite protection and must be installed at the completion of the building. Perimeter barriers should be installed around slabs, piers, substructure walls and external penetration points.</li> <li>Apply with suitable application equipment to form a continuous chemical barrier (both vertical and horizontal) around the structure and to a depth reaching 80 mm below the top of the footings, where appropriate. The formation of the barrier may require a combination of several application techniques, including soil trenching and/or rodding and open wand applications.</li> <li>Chemical barriers that have been disturbed by construction, excavation and/or landscaping activities will need to be reapplied to restore continuity of the barrier.</li> </ul>
Post-Construction Barrier Treatments Management of termites in existing buildings	<ul style="list-style-type: none"> <li>Apply with suitable equipment to form a continuous chemical barrier (both vertical and horizontal) around and under the structure with particular emphasis on known infestation areas. The formation of the barrier may require a combination of several application techniques, including soil rodding, trenching and open wand applications.</li> <li>Chemical barriers beneath concrete slabs and paths will require concrete drilling. Recommended drill hole spacings are between 150 and 300 mm and no more than 150mm from walls and expansion joints. To enhance soil distribution use a lateral dispersion tip on the injector and up to 10 L of emulsion per linear metre.</li> <li>For areas beneath suspended floors with inadequate access (eg, less than 400 mm clearance), the entire sub-floor area should be treated as a continuous horizontal barrier, which completely abuts an internal vertical barrier around any substructure walls. Otherwise, install perimeter barriers around each individual pier, stump, penetration point and substructure walls.</li> <li>Chemical barriers that been disturbed by construction, excavation and/or landscaping activities will need to be reapplied to restore continuity of the barrier.</li> </ul>
Protection of Service Poles and Fence Posts	<ul style="list-style-type: none"> <li>Create a continuous termiticide barrier 450 mm deep and 150 mm wide around the pole or post by soil injection or rodding. For new poles and posts, treat backfill and the bottom of the hole. Use 100 L of emulsion per m<sup>2</sup> of soil.</li> <li>Regular inspections should be undertaken to determine when and if retreatment is necessary. If disturbance of the barrier has occurred, retreatment of the area affected will be required.</li> <li>Posts and poles may also be drilled and injected with spray solution.</li> <li>Note: For existing poles and posts, it is impractical to treat the full depth and underneath of such poles and posts and therefore the possibility of future termite attack from below the treated area cannot be ruled out.</li> </ul>
Eradication of Termite Nest	<ul style="list-style-type: none"> <li>Locate nest and flood with insecticide emulsion. Trees, poles, posts and stumps containing nests may require drilling prior to treatment with termiticide emulsion. The purpose of drilling is to ensure the termiticide emulsion is distributed throughout the entire nest. Drill holes in live trees should be sealed with an appropriate caulking compound after injection.</li> </ul>

Note: The termiticide barrier provided by this product has a finite life. This, together with the recommendation to undertake annual inspections must be stated

**NOTE:** Because climatic and soil conditions, application methods, irrigation and agricultural practices are beyond the control of Barmac and cannot be foreseen, Barmac accepts no responsibility whatsoever for any commercial damage, loss or other result following the use of this product whether used in accordance with directions or not, subject to any overriding statutory provision and provided that such liability under those provisions shall be limited to the replacement of the goods as supplied or the rendering again of the services that are provided. The buyer accepts and uses this product subject to these conditions.