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POISON

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



Stockade

INSECTICIDE

ACTIVE CONSTITUENT: 250 g/L BIFENTHRIN SOLVENT: 666 g/L HYDROCARBON LIQUID

GROUP 3A INSECTICIDE

Controls insect pests and mites of apricots, bananas, barley, canola, citrus, clover, cotton, faba beans, field peas, grapes, lucerne, lucerne seed crops, lupins, navy beans, nectarines, peaches, pears, plums, subterranean clover, sugarcane, tomatoes and wheat as specified in the Directions for Use table.

IMPORTANT: Read this booklet before use.

APVMA Approval No: 68752/59012

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DIRECTIONS FOR USE RESTRAINTS

DO NOT use as a foliar spray in banana plantations and orchards where mite predators or other beneficials are established and providing effective mite control and/or other pest 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
Bananas	Banana weevil borer (Cosmopolites sordidus) Banana rust thrips (Chaetanaphothrips signipennis)	Old, NSW, WA & NT only	Seasonal Program Stool Treatment Method 100 - 130 ml/100 L twice per year OR 265 ml/100 L once per year Band Treatment Method 100 ml/100 L twice per year Monitoring Program Stool Treatment Method 130 ml/100 L Band Treatment Method 100 ml/100 L	1 day
Bananas	Strawberry spider mite (Tetranychus lambi)	Qld & WA only	16 mL/100 L	8 days

CRITICAL COMMENTS Seasonal Program

Twice per year Timing

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.

Once per year Timing

Apply in October/November OR March/April.

Monitoring Program

Monitor weevil borer populations carefully by trap counts and/or corm 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-treat as required.

Banana weevil borer: Application should be made after rain or irrigation during periods of high adult borer activity.

Banana rust thrips: 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.

Application Method

Stool Treatment Application

Remove trash from the base of stools and apply 500 – 750 mL of spray solution to each stool, depending on stool size. Treat the bottom 30 cm of each stool as well as the soil in a 30 cm band around each stool, ensuring thorough treatment of both butt(s) and follower(s). Use the lower spray volume of 500 mL on small stools less than 50 cm across the entire base. Band Treatment Application

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 30 cm of soil on either side of the row and 30 cm in height. Aim to apply a total spray volume of 1 L/ stool area.

For single sucker row configurations apply 28 L of solution per 100 metres of row in a band 0.5 m wide on each side of the row overlapping in the centre.

For double sucker row configurations apply 56 L of solution per 100 metres of row in a band 1 m wide on each side of the double row with the spray pattern overlapping between the rows.

Monitor mite population on old leaves particularly during hot dry conditions. Apply Apparent Stockade Insecticide 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 lower leaf surface is essential to ensure good control. Use a total spray volume of 300 – 500 L/ha.

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CROP	PEST	STATE	RATE	WHP
Cotton	Native budworm (Helicoverpa punctigera) Cotton bollworm (Helicoverpa armigera) Two spotted mite (Tetranychus urticae) Green mind (Creontiades dilutus) Apple dimpling bug (Campylomma liebknecht) False wireworm (Pterohlaeus alternatus)	Qid, NSW & WA	240 - 320 mL/ha 150 mL/ha*	14 days (H) Do NOT Graze or Cut for Stockfeed. Do NOT Feed Cotton Trash to Livestock.
	Sugarcane wireworm (Agrypnus variabilis)		1.5 mL/100 m of row	
Canola, Faba beans, Subterranean clover.	Redlegged earth mite (Halotydeus destructor) Brown pasture looper (Ciampa arietaria)	All States	20 to 40 mL/ha	4 weeks (grazing)
Clover, Barley, Field peas, Lupins,	Blue oat mite (Penthaleus major) Pasture webworm (Hednota spp.)		40 mL/ha	
Lucerne, Wheat	Bryobia mites (<i>Bryobia</i> spp.)		80 mL/ha	
Canola	Vegetable weevil (Listroderes difficilis)	All States	40 - 80 mL/ha	4 weeks (grazing)
Citrus	Leaf eating weevil (Eutinophaea bicristata)	All States	Pre-emergence program 5 or 10 mL/tree Post-emergence monitoring program 2.4 mL/tree	-
Grapes	Fig longicorn (Acalolepta vastator)	NSW, ACT & WA only	400 mL/100 L	-
Lucerne seed crops	Native budworm (Helicoverpa punctigera)	All States	160 - 240 mL/ha	-

CRITICAL COMMENTS

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.

Budworm and Bollworm: Applications should be timed to coincide with egg hatch and when small larvae up to 5 mm are present. Do not apply this product to *Helicoverpa* (= *Heliothis*) armigera larvae larger than 5 mm in length.

Two spotted mite: Applications against *Helicoverpa* spp will give good control of coincident two spotted mite, particularly when applied on low mite populations (around 10% leaf infestation). If conditions continue to favour mite development a second application may be required 14 – 20 days later.

Green mirid & Apple dimpling bug: Apply at recommended threshold levels as indicated by field checks. Use the higher rate for increased pest pressure and longer residual protection.

Wireworms: 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 - 100 L/ha in a 10 cm band over the seed before soil is brought in behind covering tynes in front of the press wheel.

*The rate is based on a 1 m row spacing. If row spacing varies from 1 m then apply at the use rate according to mL/100 m of row.

Apply as a broadcast ground rig application in a total water volume of 50 - 200 L/ha or by air in a minimum total water volume of 20 L/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. Apparent Stockade Insecticide is compatible with some herbicides. See compatibility statement for details.

Use the 40 mL 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

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 10 L/tree (e.g. at 250 trees/ha = 1250 to 2500 L/ha). **Pre-emergence program:** 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.

Post-emergence monitoring program: Apply at peak beetle emergence in October/November as indicated by field monitoring. (Refer to monitoring statement on label).

Follow up treatment maybe necessary based on a threshold of 25 beetles per 10 sites per orchard in consecutive counts 1 - 2 weeks apart.

weeks apart.
The application MUST be made at late dormancy after pruning and before bud burst. Apply a single high volume spray,

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 500 mL/vine achieved by hand application.

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.

Native Budworm: Applications should be timed to coincide with egg hatch and when small larvae up to 5 mm are present.

CROP	PEST	STATE	RATE	WHP
Navy beans	Native budworm (<i>Helicoverpa punctigera</i>) Corn earworm (<i>Helicoverpa armigera</i>)	All States	240 - 320 mL/ha	14 days (harvest and grazing)
Peaches, Nectarines Plums, Apricots	Carpophilus beetles (Carpophilus spp.)	All States	Dilute spraying 20 mL/100 L Concentrate spraying Refer to the Mixing/ Application section	1 day
Pears	Longtailed mealybug (Pseudococcus longispinus)	Vic & WA only	10 mL/100 L plus Ampol DC Tron at 1 L/100 L	14 days
Sugarcane	Sugarcane wireworm (Agrypnus spp.)	Qld, NSW & WA only	150 mL/ha* or 2.2 mL/100 m of row	-
Tomatoes	Native budworm (Helicoverpa punctigera) Corn earworm (Helicoverpa armigera) Two spotted mite (Tetranychus urticae) Tomato russet mite (Aculops lycopersici)	All States	High Volume 16 - 24 ml/100 L or Low Volume 240 ml/ha	1 day
	Whitefly (Trialeurodes vaporariorum)		12 mL/100 L water	

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

CRITICAL COMMENTS

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.

Budworm and Earworm: Applications should be timed to coincide with egg hatch and when small larvae up to 5 mm are present. Do not apply this product to *Helicoverpa* (= *Heliothis*) armigera larvae larger than 5 mm in length.

Monitor stone fruit orchards for Carpophilus beetle as fruit approach maturity and become susceptible to attack. Apply Apparent Stockade Insecticide as a dilute spray before beetles reach damaging levels. Apply to the foliage and fruit of trees. Continue to monitor beetle numbers and if necessary reapply Apparent Stockade Insecticide up to 1 day before harvest or use another insecticide registered for this purpose. Apoly 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 at rates greater than 40 mL per 100 L 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 Carpobhilus beetle.

Examine wood for the presence of over wintering longtailed mealy bugs but do not spray until large numbers of young nymphs emerge in spring. Apply this mixture to near the point of runoff to all above ground parts of the tree between green tip to commencement of flowering. Do not spray after flowering has commenced.

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 — 100 L/ha in a band 20 - 30 cm wide over the base of the furrow on top of the setts and before covering soil is brought in by tynes.

*The rate is based on 1.5 m row spacing. If row spacing varies from 1.5m then apply at the use rate according to ml /100 m of row.

Do not use low volume ground or air application on trellis tomatoes.

Crop Monitoring Program

Helicoverpa spp: Apply as indicated by field checks. Applications should be timed to coincide with egg hatch and when small larvae up to 5 mm are present. Do not apply this product to Helicoverpa (= Heliothis) armigera larvae larger than 5 mm in length.

Mites: Applications against *Helicoverpa* 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.

Schedule Spray Program

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. Do not apply this product to *Helicoverpa armigera* larvae larger than 5 mm in length.

Apply as indicated by pest incidence and repeat as necessary. Use a total spray volume of 2500 L/ha.

WITHHOLDING PERIODS:

Tomatoes, Peaches,	DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.
Nectarines, Plums,	
Apricots:	
Bananas:	
For Ground Applications	DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.
For Foliar Applications	DO NOT HARVEST FOR 8 DAYS AFTER APPLICATION.
Cotton:	DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.
	DO NOT GRAZE OR CUT FOR STOCKFEED.
	DO NOT FEED COTTON TRASH TO LIVESTOCK.
Pears:	DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.
Navy Beans:	DO NOT HARVEST, GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER APPLICATION.
Canola, Subterranean	DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 4 WEEKS AFTER APPLICATION.
Clover, Clover, Field	HARVEST WHP: NOT REQUIRED WHEN USED AS DIRECTED.
peas, Faba beans,	
Wheat, Barley, Lucerne,	
Lupins:	
Citrus, Grapes,	NOT REQUIRED WHEN USED AS DIRECTED.
Sugarcane:	

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GENERAL INSTRUCTIONS

It can be used as a protective treatment when applied at regular intervals or as a knockdown treatment to control existing pests. Best results are obtained when Apparent Stockade Insecticide is applied before pest populations build up to damaging levels.

This product is not suitable for use in Integrated Pest Management (IPM) programs where mite or other insect predators or parasites are established and providing effective mite and other insect control.

APPLICATION

Apparent Stockade Insecticide may be applied by either ground rig or aircraft. Thorough coverage is essential to ensure adequate control. Do not apply as a fog or mist.

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 100 L 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:

- a) 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.
- b) Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.
- Determine an appropriate dilute spray volume (See Dilute Spraying above) for the crop canopy. This is needed to
 calculate the concentrate mixing rate.
- d) The mixing rate for concentrate spraying can then be calculated in the following way:

Example only

- 1. Dilute spray volume as determined above: For example 1000 L/ha.
- 2. Your chosen concentrate spray volume: For example 500 L/ha.
- 3. The concentration factor in this example is: 2 X (ie. $1000 L \div 500 L = 2$).
- If the dilute label rate is 50 mL/100 L, then the concentrate rate becomes 2 x 50, that is 100 mL/100 L of concentrate spray.
- The chosen spray volume, amount of product per 100 L of water, and the sprayer set up and operation may need to be changed as the crop grows.
- For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

Ground Application: Applications should be made as a fine spray preferably using hollow cone nozzles and a droplet size of 150 to 200 microns. The application volume will depend on the type of crop to be treated. The following are suggested: Low volume broadacre applications to - e.g. cereals, canola, grain legumes, lucerne, subterranean clover: 50 - 200 L/ha. Low volume row crops applications to cotton, tomatoes, navy beans: 50-200 L/ha.

High volume applications to row crops - e.g. trellised tomatoes: 200 - 1500 L/ha except as noted in critical comments. Use 200 L/ha from transplanting increasing to 1500 L/ha at maturity.

High volume directed spray:

Grapes: Apply by hand application, using a high volume coarse spray of 500 mL/vine. (e.g. at approx. 2500 vines/ha = 1250L/ha).

Foliar sprays to bananas: 300 to 500 L/ha.

High volume application to stone fruit: 1000 to 2000 L/ha.

Soil Applied Sprays:

High volume application

Bananas:

Stool treatment: Apply as a coarse spray at 500 - 750 mL per stool.

 $Band\ treatment: Apply\ as\ a\ band\ application\ with\ a\ side\ delivery\ boom\ and\ offset\ nozzles-1\ L\ of\ spray\ solution\ per\ stool.$

Citrus:

Apply as a high volume, directed spray to the ground under each tree. For optimum control apply to both sides of the tree. Total spray volume should be 5 to 10 L / tree (e.g. at 250 trees/ha = 1250 to 2500 L/ha).

In furrow applications:

Cotton & Sugarcane: Use a coarse spray: 60 to 100 L/ha as a band over the seed or sett before covering with soil - refer to critical comments for details.

Aerial Application:

Use at least 20 L/ha of total spray volume. Spray during the cooler parts of the day or night. To reduce possibility of drift, avoid spraying in calm conditions or when wind is light and variable. Preferably, spray in a crosswind. Use suitable application equipment and/or nozzles to deliver a fine spray with a droplet size of 150 to 200 microns.

A spraydrift minimisation strategy should be employed at all times when aerially applying sprays to, or near, sensitive areas. The strategy envisaged is best exemplified by the cotton industry's Best Management Practice manual.

MONITORING

Post-emergence monitoring of Citrus leaf eating weevil populations: At first sign of major beetle emergence in mid October commence monitoring at 1 to 2 week intervals. Place polystyrene fruit box (330 x 480 mm) under tree, shake branches vigorously, repeat on ten randomly selected trees throughout orchard. If 25 beetles or more are recorded in consecutive counts, treatment is required.

MIXING

Add the required quantity of Apparent Stockade Insecticide to water in the spray tank and mix thoroughly. Maintain agitation during mixing and application.

COMPATIBILITY

Apparent Stockade Insecticide is compatible with commonly used fungicides such as Dithane M45+, Antracol+, Barrack+, Bravo+ and the herbicides - Spray.seed+, Broadstrike+, Spinnaker+, Simagranz+, Dual+, Sencor+, Glean+, Logran+ and Stomp+.

SURFACTANTS

Apparent Stockade Insecticide contains a surfactant. Additional surfactant may only be necessary on hard to wet plants and in high volume situations.

* NOTICE *

Helicoverpa (= Heliothis) armigera resistance in Northern NSW and Qld. To help contain pyrethroid resistance in H. armigera, the Summer Crop Insecticide strategy as developed by the Qld Department of Primary Industries and NSW

Agriculture should be adhered to. Failure to observe the strategy may result in widespread resistance affecting the future viability of summer cropping.

INSECTICIDE RESISTANCE WARNING



For insecticide resistance management Apparent Stockade Insecticide is a Group 3A insecticide. Some naturally occurring insect biotypes resistant to Apparent Stockade Insecticide and other group 3A insecticide may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Apparent Stockade Insecticide or other group 3A insecticides are used repeatedly. The effectiveness of Apparent Stockade Insecticide on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, Apparent Pty Ltd accepts no liability for any losses that may result from the failure of Apparent Stockade Insecticide to control resistant insects. Apparent Stockade Insecticide may be subject to specific resistance management strategies. For further information, contact your local supplier, Apparent Pty Ltd representatives or local agricultural department agronomist.

STONE FRUIT EXPORT ADVICE

Export of Treated Stone Fruit — Some export markets do not have suitable Maximum Residue Limits or import tolerances in place. Please contact Apparent Pty Ltd or the Australian Fresh Stone Fruit Growers Association prior to using this product on crops destined for export.

RE-ENTRY TO TREATED FIELDS/CROPS

Do not allow entry into treated areas until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

PRECAUTION

Do not use human flaggers/workers unless they are protected by engineering controls such as enclosed cabs.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND THE ENVIRONMENT

Dangerous to fish and aquatic organisms. DO NOT contaminate streams, rivers or waterways with the product or the used containers. Tail drains which flow from treated areas should be prevented from entering river systems.

PROTECTION OF LIVESTOCK

Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Spray in the early morning when bees are not actively foraging.

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilisers.

Triple, or preferably pressure rinse empty containers before disposal or recycling. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of water ways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

SAFETY DIRECTIONS

Attacks eyes. Poisonous if swallowed. Harmful if inhaled. Will irritate the skin. Avoid contact with eyes and skin. Do not inhale vapour. When opening the container and preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat, and elbow-length PVC gloves and goggles. If applying by hand, wear cotton overalls over normal

clothing, buttoned to the neck and wrist and a washable hat and elbow length PVC gloves. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If swallowed, do NOT induce vomiting. Give a glass of water.

SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet (SDS) which is available from the supplier.

CONDITONS OF SALE

The use of Apparent Stockade Insecticide being beyond the control of the manufacturer no warranty expressed or implied is given by Apparent Pty Ltd regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Apparent Pty Ltd accepts with no responsibility for any consequences whatsoever resulting from the use of this product.

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