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

Apparent 

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: 68752/122837

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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 Banana rust thrips	Qld, NSW, WA, NT only	<p>Seasonal Program <i>Stool Treatment Method</i> 100 - 130mL/100L twice per year OR 265mL/100L once per year</p> <p><i>Band Treatment Method</i> 100mL/100L twice per year</p> <p>Monitoring Program <i>Stool Treatment Method</i> 130mL/100L</p> <p><i>Band Treatment Method</i> 100mL/100L</p>	1 day
Bananas	Strawberry spider mite	Qld, WA only	16mL/100L	8 days

CRITICAL COMMENTS
<p>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.</p> <p>Once per year Timing Apply in October/November OR March/April.</p> <p>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.</p> <p>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.</p> <p>Application Method <i>Stool Treatment Application</i> 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. <i>Band Treatment Application</i> 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. Aim to apply a total spray volume of 1L/ stool area. For single sucker row configurations apply 28L of solution per 100 metres of row in a band 0.5m wide on each side of the row overlapping in the centre. For double sucker row configurations apply 56L of solution per 100 metres of row in a band 1m wide on each side of the double row with the spray pattern overlapping between the rows.</p> <p>Monitor mite population on old leaves particularly during hot dry conditions. Apply Apparent Stockade Insecticide as a preventive 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 – 500L/ha.</p>

CROP	PEST	STATE	RATE	WHP
Cotton	Native budworm Cotton bollworm Two spotted mite Green mirid Apple dimpling bug	Qld, NSW, WA only	240 - 320mL/ha	14 days (H) Do NOT Graze or Cut for Stockfeed. Do NOT Feed Cotton Trash to Livestock.
	False wireworm Sugarcane wireworm		150mL/ha* or 1.5mL/100m of row	
Canola, Faba beans, Subterranean clover, Clover, Barley, Field peas, Lupins, Lucerne, Wheat	Redlegged earth mite Brown pasture looper	All States	20 to 40mL/ha	4 weeks (grazing)
	Blue oat mite Pasture webworm		40mL/ha	
	Bryobia mites		80mL/ha	
Canola	Vegetable weevil	All States	40 - 80mL/ha	4 weeks (grazing)
Citrus	Leaf eating weevil	All States	Pre-emergence program 5 or 10mL/tree Post-emergence monitoring program 2.4mL/tree	-
Grapes	Fig longicorn	NSW, ACT, WA only	400mL/100L	-
Lucerne seed crops	Native budworm	All States	160 - 240mL/ha	-
Navy beans	Native budworm Corn earworm	All States	240 - 320mL/ha	14 days (harvest and grazing)

CRITICAL COMMENTS
<p>Apply as indicated by field checks.</p> <p>Use the higher rate when pest pressure is high, conditions favour pest development and when increased residual protection is required.</p> <p>Budworm and Bollworm: Applications should be timed to coincide with egg hatch and when small larvae up to 5mm are present. Do not apply this product to cotton bollworm larvae larger than 5mm in length.</p> <p>Two spotted mite: Applications against budworm and bollworm 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.</p> <p>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.</p> <p>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 – 100L/ha in a 10cm band over the seed before soil is brought in behind covering tynes in front of the press wheel.</p> <p>* The rate is based on a 1m row spacing. If row spacing varies from 1m then apply at the use rate according to mL/100m of row.</p>
<p>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. Apparent Stockade Insecticide is compatible with some herbicides. See compatibility statement for details.</p>
<p>Use the 40mL 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.</p>
<p>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 (e.g. at 250 trees/ha = 1250 to 2500L/ha).</p> <p>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.</p> <p>Post-emergence monitoring program: Apply at peak beetle emergence in October/November as indicated by field monitoring. (Refer to monitoring statement on label).</p> <p>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.</p>
<p>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.</p> <p>Do not treat lucerne seed crops for alfalfa sprout production.</p> <p>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.</p> <p>Native Budworm: Applications should be timed to coincide with egg hatch and when small larvae up to 5mm are present.</p>
<p>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.</p> <p>Budworm and Earworm: Applications should be timed to coincide with egg hatch and when small larvae up to 5mm are present. Do not apply this product to corn earworm larvae larger than 5mm in length.</p>

CROP	PEST	STATE	RATE	WHP
Peaches, Nectarines, Plums, Apricots	Carpophilus beetles	All States	Dilute spraying 20mL/100L Concentrate spraying Refer to the Mixing/ Application section	1 day
Pears	Longtailed mealybug	Vic, WA only	10mL/100L plus Ampol DC Tron at 1L/100L	14 days
Sugarcane	Sugarcane wireworm	Qld, NSW, WA only	150mL/ha* or 2.2mL/100m of row	-
Tomatoes	Native budworm Corn earworm Two spotted mite Tomato russet mite	All States	High Volume 16 - 24mL/100L or Low Volume 240mL/ha	1 day
	Whitefly		12mL/100L water	

CRITICAL COMMENTS
<p>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. Apply no more than 2 applications per season. There must be a minimum of 10 days between the re-treatment and the initial application.</p> <p>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 40mL per 100L of water when using concentrate spraying.</p> <p>Cultural control methods (eg. destruction of fallen fruit by mulching) should be used to prevent excessive build up of Carpophilus beetle.</p>
<p>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.</p> <p>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.</p> <p>*The rate is based on 1.5m row spacing. If row spacing varies from 1.5m then apply at the use rate according to mL/100m of row.</p> <p>Do not use low volume ground or air application on trellis tomatoes.</p>
<p>Crop Monitoring Program</p> <p>Budworm and earworm: Apply as indicated by field checks. Applications should be timed to coincide with egg hatch and when small larvae up to 5mm are present. Do not apply this product to corn earworm larvae larger than 5mm in length.</p> <p>Mites: 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.</p> <p>Schedule Spray Program</p> <p>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 corn earworm larvae larger than 5mm in length.</p> <p>Apply as indicated by pest incidence and repeat as necessary. Use a total spray volume of 2500L/ha.</p>

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

Tomatoes, Peaches, Nectarines, Plums, Apricots:

DO NOT HARVEST FOR 1 DAY AFTER APPLICATION

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 Clover, Clover, Field peas, Faba beans, Wheat, Barley, Lucerne, Lupins:

DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 4 WEEKS AFTER APPLICATION

HARVEST WHP: NOT REQUIRED WHEN USED AS DIRECTED

Citrus, Grapes, Sugarcane: **NOT REQUIRED WHEN USED AS DIRECTED**

GENERAL INSTRUCTIONS

Apparent Stockade Insecticide 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 100L of water. Spray to the point of run-off.
- The required dilute spray volume will change and the sprayer set up and operation may also need to be changed, as the crop grows.

Concentrate Spraying:

- 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.
- c) 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 1000L/ha.
2. Your chosen concentrate spray volume: For example 500L/ha.
3. The concentration factor in this example is: $2 \times (\text{ie. } 1000L \div 500L = 2)$.
4. If the dilute label rate is 50mL/100L, then the concentrate rate becomes 2×50 , that is 100mL/100L of concentrate spray.
5. The chosen spray volume, amount of product per 100L of water, and the sprayer set up and operation may need to be changed as the crop grows.
6. 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 broadcast applications to - e.g. cereals, canola, grain legumes, lucerne, subterranean clover: 50 - 200L/ha.

Low volume row crops applications to cotton, tomatoes, navy beans: 50-200L/ha.

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

High volume directed spray:

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

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

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

Soil Applied Sprays:

High volume application

Bananas:

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

Band treatment: Apply as a band application with a side delivery boom and offset nozzles – 1L 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 10L/tree (e.g. at 250 trees/ha = 1250 to 2500L/ha).

In furrow applications:

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

Aerial Application:

Use at least 20L/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 480mm) 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 Agriculture and Fisheries and NSW Department of Primary Industries should be adhered to. Failure to observe the strategy may result in widespread resistance affecting the future viability of summer cropping.

INSECTICIDE RESISTANCE WARNING

GROUP 3A HERBICIDE

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, AIRR 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, AIRR 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 AIRR 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 and away from children, animals, food, feedstuffs, seeds and fertilisers. 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 500mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. DO NOT burn empty containers or product.

SAFETY DIRECTIONS

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 131126; New Zealand 0800 764 766. If swallowed, do NOT induce vomiting.

SAFETY DATA SHEET

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

CONDITIONS OF SALE

The use of Apparent Stockade Insecticide being beyond the control of the manufacturer no warranty expressed or implied is given by AIRR 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 AIRR Apparent Pty Ltd accepts with no responsibility for any consequences whatsoever resulting from the use of this product.

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