Label

RLP APPROVED

DANGEROUS POISON

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

DISPLAYED BY INFOPEST

Imtrade Bifenthrin Ultra 300 EC Insecticide

ACTIVE CONSTITUENT: 300 g/L BIFENTHRIN
SOLVENT: 581.5 g/L HYDROCARBON LIQUID

GROUP 3A INSECTICIDE

For the control of *Helicoverpa* spp. in cotton, tomatoes, lucerne seed crops, navy beans; certain species of mites in bananas, cotton and tomatoes; longtailed mealy bug in pears; banana weevil borer and banana rust thrips in bananas; mirids in cotton; whitefly in tomatoes; redlegged earth mite, blue oat mite, bryobia mite, webworm and brown pasture looper in faba beans, subterranean clover, clover, canola, wheat, barley, field peas, lupins and lucerne; and certain species of wireworms in cotton and sugarcane; fig longicorn in grapes and citrus leaf eating weevil in citrus as per the Directions for Use table.

IMPORTANT: READ THE ATTACHED LEAFLET BEFORE USING THIS PRODUCT

CONTENTS: 1L - 1000L

APVMA APPROVAL NO: 65676/106761

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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 beneficial are established providing effective mite control 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	CRITICAL COMMENTS
Bananas	Banana Weevil Borer *(Cosmopolites sordidus)* Banana rust thrips *(Chaetanaphothrips signipennis)*	Qld, NSW, WA, NT only	**Seasonal Program** Stool Treatment Method 83-110 mL/100L twice per year OR 220 mL/100L once per year Band Treatment Method 83 mL/100L twice per year **Monitoring Program** Stool Treatment Method 110 mL/100L Band Treatment Method 83 mL/100L	1 day	**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 the 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. **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 30cm of soil on either side of the row and 30cm in height. Aim to apply a total spray volume of 1/L 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.
	Strawberry Spider Mite *(Terranychus lambi)*	Qld & WA only	13 mL/100L	8 days	Monitor mite population on old leaves particularly during hot dry conditions. Apply Imtrade Bifenthrin Ultra 300 EC 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 300-500L/ha.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Cotton	Native Budworm *(Helicoverpa punctigera)*, Cotton Bollworm *(Helicoverpa armigera)*, Two Spotted Mite *(Tetranychus urticae)*, Green Mirid *(Creontiades dilutus)*, Apple Dimpling Bug *(Campylomma liebknechti)*	Qld, NSW & WA only	200 - 267 mL/ha	14 days (H) DO NOT CUT OR GRAZE FOR STOCK FEED DO NOT FEED COTTON THRASH 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. **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 *Helicoverpa* (= Heliothis) *armigera* larvae larger than 5mm in length. **Two spotted mite:** Applications against Helicoverpa spp. Will give good control of coincident two spotted mite, particularly when applied in 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 mired & 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.
	False Wireworm *(Pterohlaeus alternatus)*, Sugarcane Wireworm *(Agrypnus variabilis)*		125 mL/ha or 1.27 mL/100m of row		**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 10cm band over the seed before soil is brought in behind covering tyres in front of the press wheel. 1 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.
Faba Beans, Subterranean Clover, Clover, Barley, Canola, Field Peas, Lupins, Lucerne & Wheat	Redlegged Earth Mite *(Halotydeus destructor)*, Brown Pasture Looper *(Ciampa arietaria)*	All States	16 - 33 mL/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. Use the higher rate on heavier infestations and for longer residual protection. Imtrade Bifenthrin Ultra 300 EC Insecticide is compatible with some herbicides. See compatibility statement for details.
	Blue Oat Mite *(Penthaleus major)*, Pasture webworm *(Hednota* spp.)		33 mL/ha		
	Bryobia Mites *(Bryobia* spp.)		66 mL/ha		
Citrus	Leafeating Weevil *(Eutinophaea bricristata)*	All States	**Pre-emergence Program** 4 or 8 mL/ tree **Post-emergence Monitoring Program** 2 mL/tree	-	Apply as a high volume band application in a 1.5 to 2 metres 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) **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.
Grapes	Fig Longicorn *(Acalolepta vastator)*	NSW & WA only	333 mL/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 grapevines to achieve thorough wetting of the bark. Total spray volume should be about 500 mL/vine achieved by hand application.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Lucerne Seed Crops	Native Budworm *(Helicoverpa punctigera)*	All States	133 - 200 mL/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. **Native Budworm:** Applications should be timed to coincide with egg hatch and when small larvae up to 5mm are present.
Navy Beans	Native Budworm *(Helicoverpa punctigera)*, Corn Earworm *(Helicoverpa armigera)*	All States	200 - 266 mL/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. **Budworn 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 *Helicoverpa* (= Heliothis) *armigera* larvae larger than 5mm in length.
Pears	Longtailed Mealybug *(Pseudococcus longispinus)*	Vic & WA only	8 mL/100L plus Spray Oil at 1L/100L	14 days	Examine wood for 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 run-off to all above ground parts of the tree between green tip to commencement of flowering. **DO NOT** spray after flowering has commenced.
Sugarcane	Sugarcane Wireworm *(Agrypnus spp.)*	Qld, NSW & WA only	125 mL/ha* or 1.8 mL/ 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 60-100 L/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. * 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.
Tomatoes	Native Budworm *(Helicoverpa punctigera)*, Corn Earworm *(Helicoverpa armigera)*, Two Spotted Mite *(Tetranychus urticae)*, Tomato Russet Mite *(Aculops lycopersici)*	All States	**High Volume** 13 - 20 mL/100L or **Low Volume** 200 mL/ha	1 day	**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 5mm are present. **DO NOT** apply this product to *Helicoverpa* (= Heliothis) *armigera* larvae larger than 5mm 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 Imtrade Bifentrhin Ultra 300 EC Insecticide to *Helicoverpa armigera* larvae larger than 5mm in length.
	Whitefly *(Trialeurodes vaporariorum)*		10 mL/100L water		Apply as indicated by pest incidence and repeat as necessary. Use a total spray volume of 2500L/ha.

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

WITHHOLDING PERIODS:

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.

NAVY BEANS, PEARS: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.

TOMATOES: DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.

SUBTERRANEAN CLOVER, CLOVER, FIELD PEAS, FABA BEANS, WHEAT, BARLEY, LUCERNE, AND LUPINS: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 4 WEEKS AFTER APPLICATION.

CITRUS, GRAPES: NOT REQUIRED WHEN USED AS DIRECTED.

GENERAL INSTRUCTIONS

Imtrade Bifenthrin Ultra 300 EC Insecticide is a contact and residual insecticide/miticide. 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 Imtrade Bifenthrin Ultra 300 **EC** 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.

INSECTICDE RESISTANCE WARNING

GROUP	3A	INSECTICIDE

For insecticide resistance management Imtrade Bifenthrin Ultra 300 EC Insecticide is a Group **3A** Insecticide. Some naturally occurring insect biotypes resistant to Imtrade Bifenthrin Ultra 300 EC Insecticide and other Group **3A** Insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. The effectiveness of Imtrade Bifenthrin Ultra 300 EC Insecticide on resistant individuals could be significantly reduced. Since the occurrence of resistant individuals is difficult to detect prior to use, Imtrade Australia Pty Ltd accepts no liability for any loss that may result from the failure of Imtrade Bifenthrin Ultra 300 EC Insecticide to control resistant insects. Imtrade Bifenthrin Ultra 300 EC Insecticide may be subject to specific resistance management strategies. For further information contact your local supplier, Imtrade Australia Pty Ltd, representative or local agricultural department agronomist.

*** 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.

Application

Imtrade Bifenthrin Ultra 300 **EC** 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.

1. Tree and Vine Crops

Mixing/Application

DILUTE SPRAYING

Use a sprayer designed to apply high volumes of water up to the point of runoff and matched to the crop being sprayed. Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to the point of run-off. Avoid excessive run-off. The required water volume may be determined by applying different test volumes, using different settings on the sprayer, from industry guidelines or expert advice. Add the amount of product specified in the Directions for Use table for each 100L of water. Spray to the point of run-off. The required dilute spray volume will change and the sprayer set up and operation may also need to be changed, as the crop grows.

CONCENTRATE SPRAYING

Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required to reach the point of runoff) and matched to the crop being sprayed. Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume. Determine an appropriate dilute spray volume (See Dilute Spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate. The mixing rate for concentrate spraying can then be calculated in the following way:

EXAMPLE ONLY

(i) Dilute spray volume as determined above: For example 1500L/ha
(ii) Your chosen concentrate spray volume: For example 500L/ha
(iii) The concentration factor in this example is: 3 x (i.e. 1500L ÷ 500L = 3)
(iv) If the dilute label rate is 10 mL/100L, then the concentrate rate becomes 3 x10, that is 30 mL/100L of concentrate spray.

The chosen spray volume, amount of product per 100L of water, and the sprayer set up and operation may need to be changed as the crop grows. For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

2. Other Crops

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: 50-200L/ha.

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

High volume applications to row crops – e.g. Trellised Tomatoes: 200-1000L/ha except as noted in critical comments. Use 200L/ha from transplanting increasing to 1000L/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).

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 - 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 application
Cotton and 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 solution. Spray during the cooler parts of the day or night. To reduce the 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 spray drift 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 the orchid. If 25 beetles or more are recorded in consecutive counts, treatment is required.

MIXING
Add the required quantity of Imtrade Bifenthrin Ultra 300 EC Insecticide to water in the spray tank and mix thoroughly. Maintain agitation during mixing and application.

COMPATIBILITY
Imtrade Bifenthrin Ultra 300 EC Insecticide is compatible with commonly used fungicides such as Dithane M45®, Antracol, Check-Out 500® and the Herbicides Paraquat 250, Broadstrike®, Spinnaker®, Simazine 900 WDG, Bouncer®, Chlorsulfuron, Triasulfuron and Pendimethalin.
Surfactants
Imtrade Bifenthrin Ultra 300 EC Insecticide contains a surfactant. Additional surfactant may only be necessary on hard to wet plants and in high volume situations.

RE-ENTRY TO TREATED FIELDS/CROPS
DO NOT re-enter treated field/crop until spray deposits have dried, unless wearing suitable protective clothing (i.e. waterproof hat, overalls, boots and gloves).

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND THE ENVIRONMENT
Dangerous to fish and aquatic organisms.
DO NOT contaminate streams, rivers, wetlands or watercourses with this product or the used container. Tail drains which flow from treated areas should be prevented from entering river systems.

PROTECTION OF LIVESTOCK
Highly toxic to bees.
Will kill bees foraging in the crop to be treated or in hives which are over-sprayed or reached by spray drift. Residues may remain toxic to bees for several days after application.

STORAGE AND DISPOSAL ***(containers 1L and greater)***
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 deliver empty packaging for appropriate disposal to an approved waste management facility. Empty containers and product should **NOT** be burnt.

Envirodrum - Micro Matic Valve ***(110L)***
Store the original sealed Envirodrum in a cool, well ventilated area. **DO NOT** store for prolonged periods in direct sunlight. **DO NOT** tamper with the Micro Matic valve or the security seal. **DO NOT** contaminate the Envirodrum with water or any other foreign matter. After each use of the product please ensure that the Micro Matic coupler, delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the Envirodrum have been used, please return the empty Envirodrum to the point of purchase.

Refillable containers ***(1000L only)***
Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

SAFETY DIRECTIONS

Harmful if swallowed or inhaled. May irritate the eyes and skin. Repeated exposures may cause allergic disorders. **DO NOT** inhale vapour or spray mist. Avoid contact with eyes and skin. When opening the container, preparing the product for use and using the product, wear cotton overalls, over normal clothing, buttoned to the neck and wrist and a washable hat, elbow-length chemical resistant gloves and a half facepiece respirator. Wash hands after use. After each day's use, wash gloves, and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (Ph Australia 13 1126). If swallowed, **DO NOT** induce vomiting. Give a glass of water.