



Product Name: IMTRADE TYRANEX 500 SL INSECTICIDE
APVMA Approval No: 70118/130641

Label Name:	IMTRADE TYRANEX 500 SL INSECTICIDE
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Signal Headings:	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	ACTIVE CONSTITUENT: 500 g/L TRICHLORFON (an anticholinesterase compound)
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Mode of Action:	GROUP 1B INSECTICIDE
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Statement of Claims:	For control of a wide variety of insects in various situations as specified in the Directions for Use table.
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Net Contents:	1L-1000L
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Restrains:	
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Directions for Use:	This section contains file attachment.
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Other Limitations:	
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Withholding Periods:	HARVEST EDIBLE CROPS: DO NOT HARVEST FOR 2 DAYS AFTER APPLICATION. GRAZING PASTURES, FORAGE CROPS: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 2 DAYS AFTER APPLICATION.
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DRIED FRUIT: DO NOT USE TREATED PRODUCE FOR HUMAN CONSUMPTION OR FOR STOCK FOOD WITHIN 2 DAYS OF TREATMENT.

Trade Advice:

Export of Treated Produce

Growers should note that MRLs or import tolerances do not exist in all markets for edible produce treated with TYRANEX® 500 SL. If you are growing edible produce for export, please check with Imtrade Australia Pty Ltd for the latest information on MRLs and import tolerances before using TYRANEX® 500 SL.

General Instructions:

Before opening, carefully read Directions for Use, Precautionary Statements, Safety Directions and First Aid Instructions. This product is an insecticide especially formulated for the control of chewing insects in field crops. Application to actively feeding insects results in rapid knockdown and control.

Crop Safety

TYRANEX® 500 SL will not injure plants when applied in accordance with the directions on this label, however, this product is phytotoxic to some varieties of Sorghum including Alpha and Pioneer 846 varieties. A check should be made before applying this product to a Sorghum crop as some new varieties may also be affected. TYRANEX® 500 SL may be subject to alkaline hydrolysis under high pH conditions. If using water with a pH of 8 or greater, add an acidifying surfactant (350 g/L Soyal Phospholipids + 350 g/L Propionic Acid) at 100mL/100L to reduce the pH. The acidifying surfactant should be mixed in the water before adding TYRANEX® 500 SL.

MIXING

Add the required quantity of TYRANEX® 500 SL to water in the spray vat while stirring or with agitators in motion. Use immediately after mixing.

APPLICATION

Good pest control requires even, thorough coverage of the target area. Application should be made using appropriate spray equipment and sufficient water to provide adequate penetration and coverage. Equipment settings and water volume may need to vary depending on the growth stage of the crop.

Special Instructions for Tree and Vine Crops

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:

- 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.
- 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 can then be calculated in the following way:

EXAMPLE ONLY

1. Dilute spray volume as determined above: For example 1500L/ha

2. Your chosen concentrate spray volume: For example 500L/ha
3. The concentration factor in this example is: 3X (i.e. 1500L ÷ 500L=3)
4. If the dilute label rate is 10 mL/100L, then the concentrate rate becomes 3 x 10, 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 guideline, undertake appropriate competency training and follow Industry Best Practices.

Aerial Application

Spraying technique should be “placement” rather than “drift” to ensure crop penetration. The swath width should be chosen to give uniform coverage. For best results spray in the evening or early morning and avoid thermals and still air during the day.

Rice – Bloodworm Control

Apply at sowing time or within 24 hours of sowing to flooded bays where the water depth is 150mm or less. Use the higher rate when the water depth is greater than 150mm or where high amounts of organic matter are present. Bays should be flooded at least 3 days prior to application to ensure maximum hatching of Bloodworm. When organic matter content of bays is unavoidably high, reduce water level and monitor results of spraying. Re-apply as indicated by pest population.

Rice Seed for Aerial Sowing

For Bloodworm control: Mix product with water then pour evenly over pre-germinated seed equivalent to that needed for sowing one hectare in the hopper of the aircraft or seed auger. The treated seed should be sown within one hour of treatment to avoid possible damage to the seed. Treated seed is only to be used for sowing. Treated seed is not to be used as food for humans or poultry or any other animal. DO NOT allow treated seed to contaminate grain intended for human or animal consumption. Treated seed is not to be fed, or otherwise exposed, to wild or domestic birds. DO NOT contaminate areas other than rice-growing bays with treated seed. Any treated seed not used for sowing is to be destroyed.

COMPATIBILITY

TYRANEX® 500 SL is compatible with most commonly used insecticides and fungicides including Antracol®. As formulations of other manufacturers' products are beyond the control of Imtrade Australia Pty Ltd, all mixtures should be tested prior to mixing commercial quantities. As changes in climate conditions can alter the sensitivity of plants to mixture of sprays, Imtrade Australia Pty Ltd accepts no responsibility for the behaviour of such mixtures.

Resistance Warning:

INSECTICIDE RESISTANCE WARNING GROUP 1B INSECTICIDE

For insecticide resistance management TYRANEX® 500 SL is a Group 1B Insecticide. Some naturally occurring insect biotypes resistant to TYRANEX® 500 SL and other Group 1B Insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if TYRANEX® 500 SL or other Group 1B Insecticides are used repeatedly. The effectiveness of TYRANEX® 500 SL on resistant individuals could be significantly reduced.

Since occurrence of resistant individuals is difficult to detect prior to use, Imtrade Australia Pty Ltd accepts no liability for any losses that may result from the failure of TYRANEX® 500 SL to control resistant weeds. TYRANEX® 500 SL may be subject to specific resistance management strategies.

For further information contact your local supplier, Imtrade Australia Pty Ltd representative or local agricultural department of agriculture agronomist.

Precautions:	<p>Re-entry Period DO NOT allow entry into treated areas until the spray deposits have dried. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist and elbow-length PVC gloves. Clothing must be laundered after each day's use.</p>
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Protections:	<p>PROTECTION OF LIVESTOCK Dangerous to bees. DO NOT spray any plants in flower while bees are foraging.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT Very toxic to aquatic life with long lasting effects. DO NOT contaminate streams, rivers or waterways, wetlands, watercourses with the chemical or used containers.</p>
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Storage and Disposal:	<p>The method of disposal of the container depends on the container type. Read the Storage and Disposal instructions on the label that is attached to the container.</p> <p>Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight.</p> <p>All other non-refillable containers Triple rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemical 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. 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 and product. DO NOT re-use empty container for any other purpose.</p> <p>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.</p> <p>Refillable Containers (1000L only) Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.</p>
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Safety Directions:	<p>Product is poisonous if absorbed by skin contact, inhaled or swallowed. Repeated minor exposure may have a cumulative poisoning effect. Avoid contact with eyes and skin and clothing. DO NOT inhale spray mist. When preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves, goggles, impervious footwear and half piece respirator with combined dust and gas cartridge (canister). If clothing becomes contaminated with product or wet with spray, remove clothing immediately. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, goggles contaminated clothing and respirator (if respirator is rubber wash with detergent and warm water).</p>
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First Aid Instructions:	If swallowed, splashed on skin or in eyes, or inhaled, contact a Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor at once. Remove any contaminated clothing and wash skin thoroughly. If swallowed, activated charcoal may be advised. Give atropine if instructed.
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First Aid Warnings:	
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1. FIELD CROPS AND PASTURES

Situation/Crop	Pest Controlled	State	Rate	Critical Comments
Canola	Common Armyworm, Southern Armyworm (Barley Grub)	NSW, Vic, WA only	1.2L/ha	Spray when pests are active. A re-spray may be necessary depending on pest population.
Cereal Crops	Armyworms, Common Armyworm, Southern Armyworm (Barley Grub)	All States		
	Cutworm	QLD, NT only	1L/ha	For best results spray late in the afternoon or at night. A re-spray may be necessary depending on pest population.
	Cutworm, Native Budworm	WA, NT only	1.7L/ha	
Grass Seed Crops	Armyworm, Common Armyworm, Southern Armyworm (Barley Grub)	All States	1.2L/ha	Spray when pests are active. A re-spray may be necessary depending on pest population.
Legumes				
Linseed		NSW, Vic, WA only		
Lupins	Common Armyworm, Southern Armyworm (Barley Grub)	NSW, Vic, WA only		
Lucerne	Native Budworm	SA only	900 mL/ha	For best results spray late in the afternoon or at night. A re-spray may be necessary depending on pest population.
		QLD only	1L/ha	
Maize	Armyworms	QLD, NT only	1.2L/ha	Spray when pests are active. A re-spray may be necessary depending on pest population.
	Cutworm	QLD, NT, Vic only	1L/ha	For best results spray late in the afternoon or at night. A re-spray may be necessary depending on pest population.
Pastures	Armyworms, Common Armyworm, Southern Armyworm (Barley Grub)	All States	1.2L/ha	Spray when pests are active. A re-spray may be necessary depending on pest population.
	Cutworm	QLD, NT only	1L/ha	For best results spray late in the afternoon or at night. A respray may be necessary depending on pest population.
		WA, NT only	1.2L/ha	
	Webworm, Sod Webworm	Qld, NT only	1.3L/ha	Spray when pests are active. A respray may be necessary depending on pest population.
Rice	Bloodworm	NSW only	600-850mL/ha	For application details see General Instructions .
	Leaf Miner		850mL/ha	Apply at first sign of larvae activity.
	Rice seed for aerial sowing		Bloodworm	625 mL/1L water/seed require to sow 1ha
Safflower	Cutworm	QLD, NT only	1L/ha	For best results spray late in the afternoon or at night. A respray may be necessary depending on pest population.
	Rutherglen Bug, Grey Cluster Bug		1.1L/ha	Apply when pests are first seen and repeat if necessary. For best results against Cutworm, spray late in the afternoon or at night.
Small Grains	Armyworms	QLD, NT only	1.2L/ha	Spray when pests are active. A respray may be necessary depending on pest population.
Sorghum	Cutworm, Sorghum Head Caterpillar		1.1L/ha	Apply when pests are first seen and repeat if necessary. For best results against Cutworm, spray late in the afternoon or at night.

1. FIELD CROPS AND PASTURES (Continued)

Situation/Crop	Pest Controlled	State	Rate	Critical Comments
Soybeans	Green Vegetable Bug	QLD, NSW only	1.25L/ha	Apply when pests are first seen and repeat if necessary. For best results against Cutworm, spray late in the afternoon or at night.
Sugarcane	Armyworms		1.2L/ha	Spray when pests are active. A respray may be necessary depending on pest population.
Sunflowers	Common Armyworm, Southern Armyworm (Barley Grub)	NSW, Vic, WA only	1.2L/ha	
	Cutworm	QLD, NT only	1L/ha	For best results spray late in the afternoon or at night. A respray may be necessary depending on pest population.
	Rutherglen Bug	QLD, NSW, SA only	1.1L/ha	Apply when pests are first seen and repeat if necessary. For best results against Cutworm, spray late in the afternoon or at night.

2. FRUIT CROPS - TREE AND VINE

Rates				Critical Comments
In the following table, all rates are given for dilute spraying. For concentrate spraying and for further details on dilute spraying, refer to the <i>Special Instructions for Tree and Vine Crops</i> section.				<p>For all uses in this table:</p> <p>Where appropriate, apply by dilute or concentrate spraying equipment. Apply the same total amount of product to target crop whether applying this product by dilute or concentrate spraying methods. Refer to the <i>Special Instructions for Tree and Vine Crops</i> section.</p>
Situation/Crop	Pest Controlled	State	Rate (Dilute spraying)	
Avocados	Fruit Spotting Bug, Monolepta Beetle	Qld, NSW, NT only	200 mL/100L water	
Fruit Fly Foliage Bait	Fruit Fly	QLD, NSW, Vic, WA, NT only	125 mL TYRANEX® 500 SL per 16L or water PLUS 320 mL yeast autolysate	
Grapevines	Grapevine Moth	Qld, SA, WA, NT only	250 mL/100L	
Guava	Queensland Fruit Fly	NSW, NT only	1 st spray 250 mL/100L	Apply at start of stinging. Repeat at half concentration every 7-10 days.

2. FRUIT CROPS - TREE AND VINE (Continued)

Rates				Critical Comments
In the following table, all rates are given for dilute spraying. For concentrate spraying and for further details on dilute spraying, refer to the Special Instructions for Tree and Vine Crops section.				<p>For all uses in this table:</p> <p>Where appropriate, apply by dilute or concentrate spraying equipment. Apply the same total amount of product to target crop whether applying this product by dilute or concentrate spraying methods. Refer to the Special Instructions for Tree and Vine Crops section.</p>
Situation/Crop	Pest Controlled	State	Rate (Dilute spraying)	
Macadamia	Fruit Spotting Bug	Qld, NSW, NT only	100 mL /100L water	Apply when premature nut fall is evident. A second application 2 weeks later may be necessary.
	Banana Spotting Bug	Qld, NT only		Apply when damaging levels of the pest occur.
	Macadamia Flower Caterpillar	Qld, NSW, NT only		
Pawpaw	Fruit Spotting Bug	QLD, NT only		Apply when fruit spotting is noticed. A second application 2 weeks later may be necessary.
	Banana Spotting Bug			
Passionfruit	Passion Vine Bug, Green Vegetable Bug			Apply when pests are first seen and repeat if necessary.
Pome Fruit	Fruit Fly	QLD, NSW, Vic, WA, NT only	1 st spray 500 mL/100L	Apply at start of stinging. Repeat at half concentration every 7-10 days.
	Rutherglen Bug	NSW, Vic, Tas, SA, WA only	125 mL /100L water	Spray when pest outbreak occurs and repeat if reinvaded. Also spray nearby weeds.
Stone Fruit	Queensland Fruit Fly	QLD, NSW, Vic, WA, NT only	1 st spray 250 mL/100L	Apply at start of stinging. Repeat at half concentration every 7-10 days.
	Rutherglen Bug	NSW, Vic, Tas, SA, WA only	125 mL /100L water	Spray when pest outbreak occurs and repeat if reinvaded. Also spray nearby weeds.

3. FRUIT CROPS - BERRIES

Situation/Crop	Pest Controlled	State	Rate	Critical Comments
Blueberries	Queensland Fruit Fly	NSW only	250 mL/100L	Apply 21, 14 and 7 days before harvesting, when fruit fly are numerous. Treat in late afternoon after bees have finished foraging.
Strawberries	Cluster Caterpillar	Qld, NT only	200 mL /100L water	Apply when pests are first seen.
	Cutworm	Qld only	95 mL/100L water	Thoroughly spray the bases of plants and surrounding soil. Spray in the late afternoon or night.

4. DRIED FRUIT

Situation/Crop	Pest Controlled	State	Rate	Critical Comments
Dried Fruits	Vinegar Fly	NSW, Vic, Tas, WA, SA only	200 mL /100L water	Spray drying racks and refuge heaps where flies are troublesome.

5. VEGETABLES

Situation/Crop	Pest Controlled	State	Rate	Critical Comments
Beans, Celery, Crucifers, Cucurbits, Lettuce, Peas, Potatoes, Tomato	Cutworm	Qld, NT only	95 mL/100L	Thoroughly spray the bases of plants and surrounding soil. Spray in the late afternoon or night.
Capsicum (Sweet Peppers), Chillies	Fruit Fly	Qld, NSW, Vic, WA, NT only	1 st spray 250 mL/100L Repeat sprays 125 mL/100L	Apply at the start of stinging. Repeat at half concentration every 7-10 days. DO NOT use on Capsicums or Chillies grown in glass or shade house, or in other enclosed areas.
Tomatoes				Apply at start of stinging. Repeat at half concentration every 7 to 10 days.
	Rutherglen Bug	Qld only	100 mL /100L	Apply when pests are first seen.
Vegetables	Cabbage White Butterfly, Cabbage Moth, Green Vegetable Bug	All States	150 mL/100L or 1.7L/ha	Apply when pests are first seen and repeat at 7-10 day intervals.
	Rutherglen Bug		125 mL /100L water	Spray when pest outbreak occurs and repeat if reinvaded. Also spray nearby weeds.

6. OTHER

Situation/Crop	Pest Controlled	State	Rate	Critical Comments
Fowl Houses, Piggeries, Stables, Dairies	Flies (Maggots)	All States	25 mL/10L water	Spray or water onto areas where flies breed at a rate of 5L spray mix/10m ² .
	Flies (Adults)		180 mL/10L	Apply as a residual spray to walls and other surfaces where flies alight or congregate at a rate of 5L spray mix/40m ² .
Lawn, Turf	Lawn Grub, Lawn Armyworm	Qld, NSW, WA, NT only	12 mL/10L/100m ²	Apply with a sprayer or watering can as soon as pest is present. Repeat treatment as new hatchings occur.

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