



CYPERMETHRIN

Reg. No.: L7851 Act /Wet No. 36 of/van 1947

**READ ATTACHED PACKAGED LEAFLET BEFORE USE
AND
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

IRAC INSECTICIDE GROUP CODE:	3	IRAC INSEKODDERGROEPKODE:
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An emulsifiable concentrate insecticide acting as a direct contact and stomach insecticide for Agricultural use on crops as listed.

'n Emulgeerbare konsentraat insekdoder wat optree as 'n direkte kontak en maaginsekdoder vir Landbou gebruik op gewasse soos aangedui.



DANGER

Hazard statements

Flammable liquid and vapour.
Harmful if inhaled
May be harmful if swallowed
May be harmful in contact with skin
May cause genetic defects
May cause cancer
May cause respiratory irritation or may cause drowsiness/dizziness.
May be fatal if swallowed and enters airways
May cause damage to organs through prolonged or repeated exposure
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects

Precautionary statements

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
Avoid release to the environment if this is not the intended use and collect spillage.

ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL:

Cypermethrin (pyrethroid) / Sipermetrien (piretroïed) 200 g/l

Registration holder /Registrasiehouer:

UPL South Africa (Pty) Ltd
Co. Reg. No./Mpy. Reg. Nr.: 2009/019713/07
7 Sunbury Office Park,
Off Douglas Saunders Drive, La Lucia Ridge,
South Africa, 4019
Tel: 031 514 5600

Contents/Inhoud
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Batch No.
Date of Manufacture....
Expiry date (< 2 years)....



.....Lot Nr.
Datum van Vervaardiging
...(<2 jr)...Vervaldatum

U.N. No. / VN Nr: 3351
Emergency number

: **Griffon Poison Information Centre: 082 4468946,**
Poisons Information Helpline: 0861 555 777,
In case of Spillage: Spill Tech: 086 100 0366 / 083 253 6618

WARNINGS:

H226 - Flammable liquid and vapour.
 H332 - Harmful if inhaled
 H303 - May be harmful if swallowed
 H313 - May be harmful in contact with skin
 H340 - May cause genetic defects
 H350 - May cause cancer
 H335/H336 - May cause respiratory irritation or may cause drowsiness/dizziness.
 H304 - May be fatal if swallowed and enters airways
 H373 - May cause damage to organs through prolonged or repeated exposure
 H400 - Very toxic to aquatic life
 H410 - Very toxic to aquatic life with long lasting effects

The following withholding periods, minimum time between last application and harvest or grazing, are required:

Canning Peaches:	3 days
Cruciferae & Tomatoes:	4 days
Beans, Soybeans, Groundnuts (hay) & Peas:	7 days
Apples, Pears & Table Peaches	14 days
Lucerne (grazing), Maize, Sweetcorn:	14 days
Citrus, Wine & Table Grapes:	28 days
Cotton (grazing) & Sorghum:	28 days
Macadamia nuts & Rooibos tea:	30 days

- Handle concentrate with care.
- Irritating to eyes, respiratory system and skin.
- Very toxic to fish. Under field conditions, fish are not at risk from normal agriculture usage.
- Highly toxic to bees. No hazard to bees under normal application conditions.
- **FLAMMABLE** – do not store near open flame.
- Keep under lock and key, out of reach of children, uninformed persons and animals.
- Store in a cool, dry place and away from food and feedstuffs.

Re-entry interval: Do not enter treated area within 1 day after treatment, unless wearing protective clothing.

In case of poisoning call a doctor and make the label available to him/her.

Aerial application:

Notify all inhabitants of the immediate area to be sprayed and issue the necessary warning. Do not spray over or allow to contaminate adjacent areas, rivers, dams or citrus orchards under integrated bio-control of red scale. Allow at least a 100 metre buffer strip between cotton field and orchard.

Although this remedy has been extensively tested under a large variety of conditions the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal soil, climatic and storage conditions: quality of dilution water, incompatibility with other substances not indicated on the label and the occurrence of resistance of the pest against the remedy concerned, as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or for lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS:

P101 – If medical advice is needed, have product container or label at hand.
P102 – Keep out of reach of children.
P103 – Read carefully and follow all instructions.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P203 - Obtain, read and follow all safety instructions before use.
P233 - Keep container tightly closed.
P240 - Ground and bond container and receiving equipment.
P241 - Use explosion-proof equipment.
P242 - Use non-sparking tools.
P243 - Take action to prevent static discharges.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P271 - Use only outdoors or in a well-ventilated area.
P273+P391 - Avoid release to the environment if this is not the intended use and collect spillage.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301 + P316 - IF SWALLOWED: Get emergency medical help immediately.
P301+ P317 - IF SWALLOWED: Get medical help.
P302 + P317 - IF ON SKIN: Get medical help.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water.
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P317 - Get medical help.
P318 - IF exposed or concerned, get medical advice.
P319 - Get medical help if you feel unwell.
P331 - Do NOT induce vomiting.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

- Avoid skin and eye contact.
- Wash with soap and water after use and accidental skin contact.
- Wash contaminated clothing after use.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean application equipment after use. Dispose of wash water where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Prevent contamination of food, feed, drinking water and eating utensils.
- **Triple rinse** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the described manner.
- Destroy the empty container by perforation and flattening and dispose of it in a safe manner.
- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

SYMPTOMS OF HUMAN POISONING:

If product is aspirated into the lungs during ingestion or vomiting, mild to severe chemical pneumonia may be caused.

May cause burning, itching or tingling sensations of the skin and readily disappear within 24 hours after exposure. Inhalation causes nasal discharge and a scratchy throat. Symptoms of high-dose ingestion include nausea, prolonged vomiting, stomach pains and diarrhea, which progresses to convulsions, unconsciousness and coma.

FIRST AID TREATMENT:

Remove patient from source of poisoning and keep him quiet and reassured.

Eyes: Flush eyes with clean gentle flowing water for at least 20 minutes, occasionally lifting upper and lower lids, until no evidence of chemicals remains. If irritation occurs and persists, obtain medical attention.

Skin: Remove contaminated clothing and rinse contaminated body area thoroughly with plenty of soap and cold water, until no evidence of chemical remains. Do not rub skin. Apply olive oil to affected areas for prompt relief. Get medical attention if irritation occurs and persists.

Inhalation: Move the patient to fresh air. If breathing difficulty or irritation occurs and persists, obtain medical attention.

Ingestion: Do not induce vomiting. If the patient is alert, have the mouth thoroughly rinsed with water. Do not give anything by mouth. If vomiting occurs, prevent vomit from being inhaled. Get a medical attention.

NOTE TO PHYSICIAN:

This product contains a pyrethroid and an aromatic solvent.

If product is aspirated into the lungs during ingestion or vomiting, mild to severe chemical pneumonia may be caused. The stomach should be emptied as soon as possible by careful gastric lavage.

Antidote is not available. Treat symptomatically and supportively. In case of ingestion, consider gastric lavage with water or 5% sodium bicarbonate solution. Convulsions should be treated with anti-convulsants.

RELEVANT SUBSTANCES:

Aromatic hydrocarbons, C9 ≥ 68.49%

Emulsifier A & Emulsifier B ≥ 23.02%

RESISTANCE WARNING:

For resistance management, **CYPERMETHRIN** is a group code **3** insecticide. Any insect population may contain individuals naturally resistant to **CYPERMETHRIN** and other group code **3** insecticide. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **CYPERMETHRIN** or any other group code **3** insecticide.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticide from the same insecticide group code. Alternate or tank mix with products from different insecticide group codes,
- Integrate other control methods (chemical, cultural, biological) into insect control programmes.

For specific information on resistance management contact the registration holder of this product.

WARNING AGAINST RESISTANCE:

Resistance of American bollworm (*Helicoverpa armigera*) to synthetic pyrethroids has been confirmed.

Cotton:

Synthetic pyrethroids must **only** be applied to cotton during the period 1 January to 28 February.

All Other Crops:

DO NOT respray more than two applications per growing season. If a pyrethroid gives poor performance, **DO NOT** respray with any synthetic pyrethroid, even at a corrective dosage rate. Use a product from a different chemical group.

DIRECTIONS FOR USE: Use only as directed.**Compatibility:**

- **CYPERMETHRIN** is compatible with a wide range of pesticides. However, since it is not possible for Tsunami Plant Protection to test all possible combinations, the onus lies with the user to carry out a compatibility test in the event of any uncertainty.

- Do not mix **CYPERMETHRIN** with seaweed extract or vamidothion, prothiophos, chinomethionate and amitraz.
- When spraying grapes a wetting agent should not be added to **CYPERMETHRIN**.
- The efficacy of **CYPERMETHRIN** can be harmed at high pH value of the spray mixture. It is more stable at a pH of around 4. Where an acidifying agent is used to lower the pH of the water, the agent must be added to the water before the **CYPERMETHRIN**.
- The addition of molasses has acidifying effect and reduces evaporation of the spray mist.
- For ground application add 10% molasses by volume and 20% for aerial application.

Mixing Instructions:

- Half fill the spray tank with clean water.
- Ensure pH of water is around 4. Add a suitable buffering agent to correct pH of water if necessary.
- Measure out the required quantity of **CYPERMETHRIN** and premix this with at least 10 litres of already pH corrected water (pH 4). If any other product is to be added to the tank mixture, the required volume of that product must be premixed in similar fashion.
- Agitate the water in the spray tank and add the premixed product(s) to the tank.
- Fill the spray tank with water to the required volume, while maintaining agitation to ensure thorough mixing.
- Maintain agitation during the whole spraying operation.
- Use the prepared mixture immediately.
- Do not allow to stand overnight.

All spray applications must be made with suitable equipment that is in good working order and correctly calibrated to give the desired coverage for that particular method of application.

The efficacy of CYPERMETHRIN can be harmed at high pH value of the spray mixture. It is more stable at a pH of around 4. Where an acidifying agent is used to lower the pH of the water, the agent must be added to the water before the CYPERMETHRIN.

Prepared spray mixture must not be left in the spray tank for any length of time e.g. overnight.

The addition of molasses has an acidifying effect and reduces evaporation of the spray mist. For ground application add 10% molasses by volume.

Ground Application:

- When using a conventional high volume sprayer or a mistblower, fit equipment with hollow cone nozzles that give medium to fine droplets.
- Ensure that sprayers are calibrated before spraying and that thorough coverage is obtained.
- A uniform distribution must be ensured.

Aerial Application:

Aerial application of **CYPERMETHRIN** may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Pesticides). Ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met:

- Volume: A spray mixture volume of 30 litre per hectare is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aurally at a lower volume rate than recommended above.
- Droplet coverage: 30 to 40 droplets per cm² must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 250 to 280 microns is recommended. Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
- Flying height: Maintain the height of the spray boom at 3 to 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking.

- Use suitable atomising equipment that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomisers within the inner 60 to 75 % of the wingspan to prevent droplets from entering the wingtip vortices.
- The difference in temperature between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C.
- Stop spraying if the wind speed exceeds 15 km/h.
- Stop spraying under turbulent, unstable and dry conditions during the heat of the day.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following:
 - Reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
 - Damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- Ensure that the Aerial Spray Operator knows exactly which fields to spray.
- Obtain an assurance from the Aerial Spray Operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

Compatibility:

Not compatible with several adjuvants or any spray oils, sea weed extracts, amitraz, dodine, Tokuthion (Reg. No.L0924) or Kilval (Reg. No. L1806).

APPLICATION RATES:

The following rates are recommended for preventive spray programme. Refer to “**Resistance Warning**” above. Inspect lands if it rains shortly after spraying. If necessary repeat spraying.

CROP & PEST:	Dosage Rate:			REMARKS
	mℓ/10 ℓ water:	mℓ/100 ℓ water:	mℓ/ha:	
TOMATOES American Bollworm	1,5 mℓ	15 mℓ		Ground application: Apply as a full cover spray at the first signs of infestation. Repeat the application 7 to 10 day intervals or as directed by inspection of the crop.
				<u>High volume:</u> Apply up to 500 litre spray mixture per hectare to plants up to 60 cm high and 1000 litre per hectare or more to plants higher than 60 cm e.g. trellised tomatoes. Do not use more than 150 mℓ CYPERMETHRIN per hectare.
			75-150 ml	<u>Mistblowers:</u> Apply in 150 to 500 litre water. Use the lower rate and volume for plants up to 60 cm high and the higher rate and volume for plants higher than 60 cm e.g. trellised tomatoes. Do not use more than 150 mℓ CYPERMETHRIN per hectare.
APPLES & PEARS Banded fruit weevil (Snout beetle)	1,0 mℓ	10 mℓ	High volume: (250 – 350 mℓ) Low volume: (200 to 280 mℓ)	<u>High volume:</u> 2500 to 3500 litre spray mixture per hectare. <u>Low volume:</u> Apply ¼ to ⅛ of the spray mixture volume as for high volume application. Apply two sprays: The first at 75% petal fall and the second four weeks later. A third spray can be applied in mid-January to prevent late season damage. Initially this treatment will also control American bollworm and Codling moth. CAUTION: Toxic to bees.
Codling moth and Leafrollers	0,5 mℓ	5 mℓ		Apply the first spray at 75% petal drop. Repeat every 14 days in orchards where high infestation warrant intensive control or where pheromone traps dictate applications. Repeat every 21 days in orchards when low infestations are experienced. CAUTION: Toxic to bees.
American Bollworm	0,5 mℓ	5 mℓ		Apply as a corrective spray. Do not apply before 75% petal drop. CAUTION: Toxic to bees.
GROUNDNUTS & BEANS (including soybeans) American Bollworm	1,0 mℓ		150 mℓ	Commence application as soon as eggs or larvae are noticed on plants. Repeat the application at 7-14 day intervals or as directed by inspection of the crop. <u>Ground Application:</u> Apply in not less than 200 litres water per hectare. <u>Aerial Application:</u> Apply in 30 litres water per hectare.

GRAPE VINES Weevils (Snout beetles)	1,0 ml	10 ml	25 – 150 ml	<p><u>High volume:</u> 150 to 1500 litres spray mixture per hectare.</p> <p>Apply as a full cover application ensuring thorough coverage of all parts of the plant. Apply first spray when the first signs of movement and/or feeding of weevils are detected. Repeat within 21 to 28 days as necessary. The first occurrence of weevils varies from area to area but can be expected from mid-October to mid-November.</p> <p>CAUTION: Toxic to bees.</p>
PEACHES Fruit flies	1,0 ml	10 ml	150 – 350 ml	Full cover spray at 14 day intervals, beginning 8 weeks prior to harvest. In the summer rainfall region, application should commence not later than third week of December.
False codling moth	0,5 ml	5 ml	125 – 175 ml	<p>EARLY CULTIVARS: Full cover spray at 14 day intervals, beginning 6 weeks prior to harvest.</p> <p>LATE CULTIVARS: Full cover spray at 14 day intervals, beginning 8 weeks prior to harvest. In summer rainfall region, application should commence not later than the third week of December.</p>
Codling moth	0,5 ml	5 ml	125 – 175 ml	Full cover spray at 75% petal drop. Repeat at 14 to 21 day intervals depending on level of infestation.
American Bollworm	0,5 ml	5 ml	125 – 175 ml	Full cover application at 75% petal drop or when pest is noticed.
Banded fruit weevil (Snout beetle)	1,0 ml	10 ml	250 – 350 ml	Apply as soon as damage is noticed. Repeat 4 weeks later if necessary.
PEAS American Bollworm & Lesser army worm	1,0 ml		150 ml	<p>Commence application as soon as eggs or larvae are noticed on plants. Repeat the application at 10- 14 day intervals or as directed by inspection of the crop.</p> <p><u>Ground Application:</u> Apply in not less than 200 litres water per hectare.</p> <p><u>Aerial Application:</u> Apply in 30 litres water per hectare.</p>
LUCERNE Caterpillar	1,0 ml		75 ml	<p>Commence application as soon as eggs or larvae are noticed on plants. Repeat the application at 14 day intervals or as directed by inspection of the crop.</p> <p><u>Ground Application:</u> Full cover spray in 300 litres water per hectare.</p> <p><u>Aerial Application:</u> Apply in 30 litres water per hectare.</p>

MAIZE & SWEETCORN Cutworm	0,33 ml/100m row			<u>Row Treatment:</u> Apply post emergence to the crop as soon as pest is noticed in at least 3 litres water per 100 metre row. Apply in a band at least 30 cm wide over the row. Ensure that soil is moist right to the surface at time of application. Later infestation may require a second application.
			100 ml	<u>Overall Application:</u> Ground application in 300 litres water per hectare.
			100 ml	<u>Aerial Application:</u> Apply according to the above conditions in 30 litres water per hectare.
American Bollworm	1,5 ml/100 m row			Apply when pest is noticed but not later than 80% emergence. <u>Ground Application:</u> If row width allows ground application, use not less than 3 litres water per 100 metre. Direct nozzles towards the heads.
			150 ml	<u>Aerial Application:</u> Apply in 30 litres water per hectare. Apply when pest is noticed, but not later than 80% beard emergence.
Stalkborer (Busseola)	3,5 ml/100 m row			<u>Ground Application:</u> Preventive treatment against young caterpillars based on scouting for eggs on plants. Apply 7 to 10 days after 2.5% or more plants are found to be infested with eggs. Do weekly scouting from 2 to 7 weeks after crop emergence by inspecting at least 100 plants at random per field. If eggs have hatched, spray at first signs of infestation. Direct spray into the funnel. Repeat application when scouting shows this to be necessary later in the season. Apply in sufficient water, i.e. 3 litres water per 100 metre row. This will result in the use of 350 ml per hectare on 1 metre row width and 175 ml per hectare on 2 metre row width.
			350 ml	<u>Aerial Application:</u> Apply in 30 litres water per hectare according to the directions above for ground application.
Pink stalkborer	1,5 ml/100 m row			<u>Sweetcorn:</u> Start spraying 3 weeks after planting and repeat within 10 to 14 day intervals until the ears appear. Use in not less than 3 litres water per 100 metre row. Will suppress <i>Busseola</i> stalkborer, American bollworm and Leafhoppers.
Pink stalkborer			150 ml	<u>Aerial Application:</u> Apply in 30 litres water per hectare according to the directions above for ground application.
MACADAMIAS Stink bug	2,0 ml	20 ml		Apply as a high volume spray. Time of application is based on stinkbug numbers. This is determined by means of the tree shake method. Start monitoring stinkbug numbers two weeks after flowering. Apply as soon as an average of 1, 8 stinkbugs per tree are counted. Two or three per season might be needed.

SORGHUM Cutworm	0,33 mℓ/100 m row			Apply when pest is noticed. If bollworms are concealed in the ear, control may be less effective. Later infestation may require a second application. <u>Row Treatment:</u> Apply post emergence to the crop as soon as pest is noticed in at least 3 litres water per 100 metre row. Apply in a band at least 30 cm wide over the row. Ensure that soil is moist right to the surface at time of application. Later infestation may require a second application.
			100 mℓ	<u>Aerial Application:</u> Apply according to the conditions above on 30 litres water per hectare.
American Bollworm	1,5 mℓ/100 m plant row			<u>Ground Application:</u> Direct application onto ears. Apply in not less than 3 litres water per 100 metre row.
			150 mℓ	<u>Aerial Application:</u> Apply in 30 litres water per hectare. Apply when pest is noticed. If bollworms are concealed in the ear, control may be less effective. Later infestation may require a second application.
Stalkborer (Busseola)	3,5 mℓ/100 m row			<u>Ground Application:</u> Apply in not less than 3 litres water per 100 metre row.
			350 mℓ	<u>Aerial Application:</u> Apply in 30 litres water per hectare according to the directions above for ground application on maize.
CRUCIFERAE American Bollworm, Caterpillars of the Diamond back moth, Greater cabbage moth & Thrips	1,0 mℓ	10 mℓ		Ensure good wetting of the plant by adding a wetting agent. Commence spraying at the first signs of the pest and repeat sprays every 10 to 14 days. This spray programme will suppress aphids. The use or addition of a registered aphicide may be necessary.
VARIOUS CROPS Cutworm	0,33 mℓ/100m row			Apply ONLY if the top 3 cm of soil is moist. Post emergence over the row in 3 litres water as a 30 cm band.
			100 mℓ	<u>Overall Application</u> in 300 litres water per hectare or <u>Aerial Application</u> in 30 litres water per hectare.
Army worm	1,0 mℓ		150 mℓ	A pest of grasses only (veld, grazing and grass crops). Ground or aerial application.
WATTLE PLANTATIONS Wattle bagworm			100 mℓ	<u>Aerial Application:</u> Commence spraying during November/December when wattle bagworm are most active. Apply in 30 litres water per hectare.
FORESTRY Pine emperor moth			50 mℓ	<u>Aerial Application:</u> In 30 litres water. This caterpillar defoliates Pines, Eucalyptus and Proteas.
Willow tree emperor moth			100 mℓ	<u>Aerial Application:</u> In 30 litres water. This caterpillar defoliates Willows, Acacias, Poplars and Oaks.
LAWNS: Crickets	5 mℓ			Apply at the rate of 0,5 litres per square meter and/or pour 50 mℓ of the mixture into each hole. Repeat when necessary.

Lawn caterpillar	5 ml			Apply when damage is noticed. Light full cover application. A damp sack left on the lawn overnight will reveal infestation when removed early in the morning.
Northern harvester, Termite and Ants	5 ml			Apply onto lawns at 5 litre spray mixture per 100 square meter. Repeat application when activity is noticed again. Home garden only. In the case of Northern harvester termite up to 30 days control may be expected.
Army worm	5 ml			Spray as an overall light cover onto the lawn.
Ornamentals & Flowers Aphids	1ml			Only for home garden. Apply when the pest is noticed. Repeat when necessary. Full cover application.
Mealy bug				Only for home garden. Full cover application. Ant control will materially assist with control.
Flower beetles				Direct contact spray.
Lily borer				Apply regularly when pest is around.
White fly				Only for home garden. Full cover application. Pay particular attention to the underside of the leaves.
COTTON All Bollworms, i.e. American, Red and Spiny bollworms as well as Stainers	See Warning against resistance under 'RESISTANCE WARNING' above. In order to comply with the principals of pest management and integrated control measures CYPERMETHRIN is intended to be used during the period from peak flowering until boll split, i.e. approximately 10 to 22 weeks after plant emergence. CYPERMETHRIN is primarily intended for use as preventive control measure against all bollworm larvae based on weekly scouting, or a regular spray programme applied at 7 day intervals. Normally a bollworm spray programme will commence at the beginning of flowering i.e. about 6 weeks after emergence. From then until peak flowering use registered non pyrethroid remedies. (Cotton older than 12 weeks after plant emergence is considered mature.)			
	WEEKLY: Preventive: Apply as determined by scouting for eggs, i.e. for American bollworm an average of 12 eggs per 24 plants; Red bollworm 6 eggs per 24 plants. Spiny bollworm: when two or more larvae are found during scouting 24 plants at random in lands up to 15 ha in extent. Scouting should be done at weekly intervals from flowering until boll splits. Stainers will be controlled during regular applications for control of bollworm.			
	7,5 ml	75 ml		<u>Ground Application:</u> Weekly application. With boom and nozzles. Ensure thorough coverage of the plants. For plants smaller than 60 cm apply 100 litres spray mixture per hectare. For taller plants increase the volume of spray mixture to 200 litres per hectare for mature cotton. Do not use less than 150 ml CYPERMETHRIN per hectare on mature cotton.
			75 or 150 ml	<u>Mistblower:</u> Use the lower dosage rate on cotton less than 60 cm high and the higher dosage rate on cotton taller than 60 cm. Do not use less than 150 ml CYPERMETHRIN on mature cotton.
			87 or 175 ml	<u>Aerial Application:</u> As for mistblower application, by applying in 30 litres water per hectare.

American, Red and Spiny bollworm	Corrective: Apply as a corrective spray to control an established infestation, i.e. when more than 6 bollworms per 24 plants are found during scouting or when leaf eaters are found and damage to leaves is increasing. Later instar red bollworms established inside bolls may not be controlled successfully. Success of treatment can be related to application, density of crop foliage, stand and instar of caterpillars. Allow up to 4 days for CYPERMETHRIN to achieve its full effect. A corrective application is to be considered an emergency measure and thereafter the regular programme must be resumed irrespective of the crop stage.			
		250 ml		<u>Ground application:</u> With boom and nozzles. Ensure thorough coverage of the plants. For plants smaller than 60 cm apply 100 litre spray mixture per hectare. For taller plants increase the volume of spray mixture gradually to 200 litre per hectare for mature cotton. Do not use less than 500 ml CYPERMETHRIN per hectare on mature cotton.
			250 or 500 ml	<u>Mistblower:</u> Use the lower dosage on cotton less than 60 cm high and the higher dosage rate on cotton taller than 60 cm. Do not use less than 500 ml CYPERMETHRIN per hectare on mature cotton.
COTTON All bollworms and Leaf eaters i.e. Plusia and Spodoptera	CORRECTIVE: Apply as a corrective spray to control an established infestation i.e. when more than 2 bollworms per 24 plants are found during scouting or when leaf eaters are found and damage to leaves is increasing. Later instar red bollworms established in side bolls may not be controlled successfully. Success of treatment can be related to application, density of crop, foliage, stand and instar of the caterpillars. Allow up to 4 days for CYPERMETHRIN to achieve its full effect. A corrective application is to be considered an emergency measure and thereafter the regular programme must be resumed irrespective of the crop stage.			
	25 ml	250 ml		<u>Ground Application:</u> With boom and nozzles. Ensure thorough coverage of the plants. For plants smaller than 60 cm apply 100 litres spray mixture per hectare. For taller plants increase the volume of spray mixture to 200 litres per hectare for mature cotton. Do not use less than 500 ml CYPERMETHRIN per hectare on mature cotton.
			250 or 500 ml	<u>Mistblower:</u> Use the lower dosage rate on cotton less than 60 cm high and the higher dosage rate on cotton taller than 60 cm. Do not use less than 500 ml CYPERMETHRIN on mature cotton.
CITRUS Thrips	Not to be used in orchards where Red scale is under biological.			
	a) Reinfestation 4 to 9 weeks after petal fall following use of any other registered treatment	1,5 – 2,0 ml	15 – 20 ml	Use progressively lower dosage the later the reinfestation occurs during the designated time period. Apply as a light cover spray to wet foliage canopy to the point of run-off.

OR a) Reinfestation mid-November to 20 December following use of any other registered treatment.	0,5 – 0,7 ml	5 – 7 ml		Use progressively lower dosage the later the reinfestation occurs during the designated time period. Apply as a light cover spray to wet foliage canopy to the point of run-off. NB: See use restrictions for citrus at the end of the label, below.
ORNAMENTALS & FLOWERS: Aphids	1 ml			Only for home garden. Apply when pest is noticed. Repeat when necessary. Full cover application.
Mealy bug and Australian bug	1 ml			Only for home garden. Full cover application. Apply when the pest is noticed. Repeat when necessary. Ant control will materially assist with control.
Flower beetles	1 ml			Direct contact spray.
Lily borer	1 ml			Apply regularly when the pest is around
Pine emperor moth and caterpillars (eg. On Protea)	1 ml		50 ml	Direct contact spray. Apply by air in 30 litres water per hectare.
Shield bug and Twig wilters	1 ml			Only home garden. Direct contact spray. Apply regularly when pest is around.
White fly	1 ml			Only home garden. Direct contact spray. Full cover application. Pay particular attention to the underside of the leaves.
ROOIBOS TEA Leafhoppers and Loopers			75 ml	Apply when pests are present by means of an ULVA application in the following mixtures: 1 part CYPERMETHRIN plus 3 parts Micronol oil plus 6 parts water.
				Apply 750 ml of the spray mixture per hectare. Application should be done in a crosswind of approximately 2 knots at a walking speed of 2 metres per second and a walking distance of 8 metres apart. Repeat applications when necessary.

USE RESTRICTIONS FOR CITRUS:

- 1) Restrict usage to a single application per season and preferable to the period 4 to 9 weeks after petal drop, Restrict usage to a single application per season and preferable to the period 4 to 9 weeks after petal drop, for thrip control or 5 to 4 weeks before harvest for false codlingmoth control. Therefore, use **CYPERMETHRIN** only **once** per season, either for thrip control or false codling moth control.
- 2) Restrict usage to orchards in which the red scale (*Aonidiella aurantii*) is under commercial chemical control. The use of this product may lead to the build-up of red scale.
- 3) Where there is any intention to use **CYPERMETHRIN** if thrips reinfestation occurs during the designated time periods, apply a registered preventive treatment for red scale control in the early spring and a second treatment 7 to 11 weeks after petal fall.
- 4) Do not use on trees with a history of Tetranychid mite infestations.