



Insecticide

CYPERMETHRIN 200 EC

Reg. No. L 4644 Act No. 36 of 1947

6: 22/9/2022 – Nov2022

An emulsifiable concentrate contact and stomach insecticide for the control of agricultural pests as indicated.

ACTIVE INGREDIENT

cypermethrin (pyrethroid) 200 g/l

GROUP

3

INSECTICIDE



DANGER

Hazard Statements:

Flammable liquid and vapour.
Harmful if swallowed.
Harmful in contact with skin.
Causes skin irritation.
Causes serious eye damage.
May cause respiratory irritation.
May cause damage to the nervous system through prolonged or repeated oral exposure.
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.
Avoid release into the environment.
Store in a well-ventilated place.
Keep container tightly closed.
Keep cool.



villa



UN Number: 1993

Registration holder: UNIVERSAL CROP PROTECTION (PTY) LTD.

Co. Reg. No. 1983/008184/07

PO Box 801, Kempton Park, 1620

Tel. (011) 396 2233

Website: www.villacrop.co.za

24 HR EMERGENCY NUMBERS:

Griffon Poison Centre: +27 82 446 8946

24 HR Transport / Spill Emergency no: (Hazcall24) +27 86 044 4411

(Client: Villa Crop Protection)

REFER TO DETAILS AS PRINTED ON CONTAINER / BAG

DIRECTIONS FOR USE ENCLOSED

Batch Number:

Date of Manufacture:

CYPERMETHRIN 200 EC

Reg. No. L 4644 Act No. 36 of 1947

IRAC INSECTICIDE GROUP CODE: 3

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cypermethrin (pyrethroid)..... 200 g/l

Registration holder:

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P.O. Box 801

KEMPTON PARK, 1620 Tel. (011) 396 2233

WARNINGS**Withholding periods:**

Minimum time between the last application and harvest or feeding (f):	
Canning Peaches	3 days
Tomatoes and Cruciferae	4 days
Beans, Soybeans, Peas and Groundnuts [hay (f)]	7 days
Apples, Pears, Table Peaches, Maize and Lucerne (f) & Pastures	14 days
Grapes, Sorghum and Cotton (f)	28 days
Macadamias	30 days

NOTE

THE MAXIMUM RESIDUE LEVELS (MRL'S) WILL NOT BE EXCEEDED, PROVIDED APPLICATIONS ARE APPLIED AS HERewith PRESCRIBED. WHEN THE CROP IS DESTINED FOR THE EXPORT MARKET, THE INSTITUTION OF CONCERN MUST BE CONTACTED, PRIOR TO THE USE OF CYPERMETHRIN 200 EC IN A SPRAY PROGRAMME.

Hazard statements:

Flammable liquid and vapour.
Harmful if swallowed.
Harmful in contact with skin.
Causes skin irritation.
Causes serious eye damage.
May cause respiratory irritation.
May cause damage to the nervous system through prolonged or repeated oral exposure.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

- Handle with extreme care.
- Toxic to bees and moderately toxic to wildlife.
- Store in a cool, dry, well-ventilated place in the original container, tightly closed and secured.
- Store under lock and key, away from food, feeds, seed, fertilizers and other agricultural remedies.
- Keep out of reach of children, uninformed persons and animals.
- Re-entry: Do not enter treated area within one (1) day after treatment unless wearing protective clothing.
- **In case of poisoning immediately call a doctor and make this label available to him/her.**

Aerial application:

Notify all inhabitants in the immediate vicinity of the lands to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water or adjacent areas.

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, compatibility with other substances not indicated on the label and the occurrence of resistance of the pests to the remedy concerned, as well as by the method, time and accuracy of application. The registration holder further 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 event of any uncertainty.

PRECAUTIONS

Precautionary statements:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use non-sparking tools.
Take action to prevent static discharges.
Avoid breathing mist, vapours and spray.
Wash hands and face thoroughly after handling. Do not touch eyes.
Do not eat, drink, or smoke when using this product.
Use only outdoors in a well-ventilated area.
Avoid release into the environment.
Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
IF SWALLOWED: Get medical help.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [shower].
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Get medical help if you feel unwell.
Rinse mouth.
If skin irritation occurs: get medical help
Take off contaminated clothing and wash it before reuse.
Collect spillage.
Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Store locked up.
Dispose of content/container to suitable landfill in accordance with local regulations

- Prevent drift onto other crops, grazing, rivers, dams or areas not under treatment or to nearby water sources.
- Thoroughly clean the spraying equipment directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams.
- **TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS:** Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three (3) times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.
- Prevent contamination of food, feeds, drinking water and eating utensils.

Relevant hazardous components	
Cypermethrin	200 g/ℓ
Xylene	< 700 g/ℓ
Alkylbenzene sulphonate	< 50 g/ℓ
Alkylphenyl polyglycolether	< 50 g/ℓ

SYMPTOMS OF HUMAN POISONING

Hypersensitivity, tremors, fibrillation of muscles, salivation, in-coordination, nausea and/or vomiting and diarrhoea.

FIRST AID TREATMENT

- Remove the patient from the source of poisoning and keep him/her calm and reassured.
- Skin contact: Remove contaminated clothing and rinse contaminated body area thoroughly with plenty of soap and cold water. Do not rub the skin.
- Eye contact: If the substance gets into the eyes, flush with clean water for at least 15 minutes.
- If swallowed: If the substance (water diluted mixture or concentrate) has been swallowed, wash the mouth with water, and give the patient copious amounts of water to drink.
- **Do not** induce vomiting due to the aromatic solvent.
- **Do not** administer milk, cream or substances containing vegetable or animal fats, which enhance the absorption of the chemical.
- **Take the patient to the nearest physician immediately.**

NOTE TO PHYSICIAN

Treat symptomatically and supportively. Gastric lavage can be applied. Give activated charcoal to drink.

RESISTANCE WARNING

CYPERMETHRIN 200 EC is a group code 3 insecticide. Any insect population may contain individuals naturally resistant to **CYPERMETHRIN 200 EC** and other group code 3 insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **CYPERMETHRIN 200 EC** or any other group code 3 insecticide.

To delay insecticide resistance:

- avoid exclusive repeated use of insecticides 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.

RESISTANCE MANAGEMENT

- Resistance of the African bollworm (*Helicoverpa armigera*) to synthetic pyrethroids has been confirmed. As part of a strategy to prevent development of widespread resistance, the following guidelines must be adhered to for the control of *Helicoverpa armigera*:

Cotton: Synthetic pyrethroids must **only** be applied to cotton during the period 1 January to 1 March.

All other crops: **Do not** apply more than two applications per growing season.

- **For optimal control of susceptible bollworm populations, the larvae should not exceed 10 mm (1 cm) in length, at time of application.**
- If a pyrethroid spray gave ineffective control, do not re-spray with any synthetic pyrethroid even at a corrective dosage rate. Use a product from a different chemical group.

MODE OF ACTION

CYPERMETHRIN 200 EC is a non-systemic insecticide with stomach and contact action that exhibits anti-feeding action. It has good residual activity on treated plants.

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

- Not compatible with several adjuvants or any spray oils, seaweed extracts, **Amitraz**, **Dodine** and **Prothiofos**.
- **CYPERMETHRIN 200 EC** is compatible with most cotton miticides commonly used.
- The compatibility of **CYPERMETHRIN 200 EC** may be influenced by several factors. As factors influencing compatibility may vary, a physical compatibility test must always be performed before such tank mixtures are sprayed.
- When **CYPERMETHRIN 200 EC** is used in conjunction with any other agricultural remedy, adhere to all **WARNINGS**, **PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on that label.

Mixing instructions:

- The efficacy of **CYPERMETHRIN 200 EC** can be impaired by a high pH value of the spray mixture.
- Use **Commodobuff** buffer at the registered rate to adjust the pH of the water.

- **Commodobuff** buffer must be mixed with the water prior to the addition of **CYPERMETHRIN 200 EC**.
- For use in **Cruciferae** use any **Villa approved buffer + surfactant adjuvant** instead of **Commodobuff**.
- Dilute the required quantity of **CYPERMETHRIN 200 EC** into at least 10 litres water, stirring constantly, and then pour into the spray tank while agitating.
- Ensure thorough agitation during the filling of the spray tank and spraying.
- 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 and 20 % for aerial application.

Ground application:

- Use conventional high-volume spraying equipment with hollow cone nozzles.
- **CYPERMETHRIN 200 EC** may in certain cases be applied with a mistblower, as well as with conventional high-volume spraying equipment, fitted with hollow cone nozzles that deliver medium to fine droplets.
- Calibrate the sprayer before application, to ensure that the correct dosage is applied.
- The distribution of the spray mixture must be uniform throughout the target area.
- The use of drop arms on conventional booms is recommended when spraying crops such as cotton and tomatoes.
- Do not spray plants when wet with dew or rain.

Aerial application:

Aerial application of **CYPERMETHRIN 200 EC** 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 litres 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 aerially 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 micron is recommended. Limit the production of fine droplets, less than 150 micron (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 the 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 per hour.
- 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:
 - a) reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage),
 - b) 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.

USE RESTRICTIONS

- **Warning Against Resistance:** Refer to “**RESISTANCE WARNING**” and “**RESISTANCE MANAGEMENT**” as described above.
- Cutworms tend to feed sub-surface when the soil surface is dry. Damage to seedlings is usually not visible until the plants start to wither. When planting in dry soil, or when the soil shortly after planting rapidly desiccates, poor control of Cutworms can be expected, since the pest does not come into contact with the product applied to the soil surface. Follow-up application will not necessarily ensure control, unless the soil surface is moist.

APPLICATION RATES

Crop / Pest	Dosage Rate	Remarks
<u>Acacias, Oaks, Poplars, Wattles & Willows</u> Willow tree emperor moth & Wattle bag worm	100 ml / ha	<u>Aerial application:</u> In 30 litres water when the Bagworms are most active – usually in November/December.
<u>Apples & Pears</u> Banded fruit weevil (Snout beetle)	10 ml / 100 ℓ water (HV: 250 to 350 ml / ha) (1 ml / 10 ℓ water)	Apply two sprays - the first at 75 % petal fall and the second 4 weeks later. A third spray can be applied in mid-January to prevent late season damage. Initially this treatment will also control African bollworm and Codling moth. CAUTION – TOXIC TO BEES.
Codling moth & Leaf rollers	5 ml / 100 ℓ water (HV: 125 to 175 ml / ha) (0.5 ml / 10 ℓ water)	Apply the first spray at 75 % petal drop. Repeat every 14 days in orchards where high infestation warrants intensive control or where pheromone traps dictate applications. Repeat every 21 days in orchards when low infestations are experienced. CAUTION – TOXIC TO BEES.
African bollworm	Warning Against Resistance: Refer to “ RESISTANCE MANAGEMENT ” above.	
	5 ml / 100 ℓ water (HV: 125 to 175 ml / ha) (0.5 ml / 10 ℓ water)	Apply as a corrective spray. Do not apply before 75 % petal drop. CAUTION – TOXIC TO BEES.
<u>Beans (including Soybeans) & Groundnuts</u> African bollworm	Warning Against Resistance: Refer to “ RESISTANCE MANAGEMENT ” above. Commence application as soon as eggs or larvae are noticed on the plants. Repeat the application at 7- to 14-day intervals or as directed by inspection of the crop.	
	150 ml / ha (7.5 ml / 10 ℓ water)	<u>Ground application:</u> Apply in not less than 200 litres per hectare water.
	150 ml / ha	<u>Aerial application:</u> Apply in 30 litres water per hectare.

Crop / Pest	Dosage Rate	Remarks
<u>Cruciferae</u> African bollworm, Diamond back moth larvae and Thrips	Warning Against Resistance: Refer to “ RESISTANCE MANAGEMENT ” above.	
	10 ml / 100 ℓ water (1 ml / 10 ℓ water)	Ensure good wetting of the plant by adding a wetter. Commence spraying at the first signs of the pest and repeat sprays every 10 to 14 days. This treatment will suppress Aphids in a programme spray.
<u>Grape vines</u> Weevils (Snout beetles)	10 ml / 100 ℓ water (1 ml / 10 ℓ water)	Apply as a full cover application, ensuring thorough coverage of all parts of the plant. Apply the first spray when the first signs of movement and/or feeding of Snout beetle are detected. Repeat within 21 to 28 days when necessary. The first occurrence of Snout beetle varies from area to area but can be expected from mid-October to mid-November. CAUTION - TOXIC TO BEES.
<u>Eucalyptus, Pine forests & Proteas</u> Pine emperor moth	50 ml / ha	Apply when most eggs have hatched. Aerial application: In 30 litres water. This caterpillar defoliates Eucalyptus, pines and Proteas.
<u>Cotton</u>	Warning Against Resistance: Refer to “ RESISTANCE MANAGEMENT ” above.	
	In order to comply with the principles of pest management and integrated control measures, CYPERMETHRIN 200 EC is intended to be used during the period of fruiting from peak flowering until boll split, i.e., approximately 10 to 22 weeks after plant emergence. CYPERMETHRIN 200 EC is primarily intended for use as a 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.	
African, Red and Spiny bollworm, Plusia, <i>Spodoptera</i> and Stainers	Weekly application: PREVENTATIVE: Apply as determined by scouting for eggs, i.e., for African bollworm an average of 0.5 eggs per plant; Red bollworm 0.25 eggs per plant; Spiny bollworm, when 2 or more larvae are found during scouting, after scouting 24 plants at random in lands up to 15 hectares in extent. Scouting should be done at weekly intervals from flowering until boll splits. Stainers will be controlled during applications for control of bollworm.	
	75 ml / 100 ℓ water (7.5 ml / 10 ℓ water)	Ground 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 mixture to 200 litres per hectare for mature cotton. Do not use less than 150 ml CYPERMETHRIN 200 EC per hectare on mature cotton.
	75 ml OR 150 ml / ha	Mistblower: 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 150 ml CYPERMETHRIN 200 EC per hectare on mature cotton.
	87 ml OR 175 ml / ha	Aerial application: As for mistblower application, by applying in 30 litres water per hectare.

Crop / Pest	Dosage Rate	Remarks
Cotton (continued) African, Red and Spiny bollworm, Plusia, <i>Spodoptera</i> and Stainers	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 200 EC 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 / 100 l water (25 ml / 10 l water)	Ground 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 gradually to 200 litres per hectare for mature cotton. Do not use less than 500 ml CYPERMETHRIN 200 EC per hectare on mature cotton.
	250 ml OR 500 ml / ha	Mistblower: 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 200 EC per hectare on mature cotton.
	250 ml OR 500 ml / ha	Aerial application: As for mistblower application, by applying in 30 litres water per hectare.
Lucerne Lucerne caterpillar	75 ml / ha	Apply as soon as the pest occurs. Aerial application: Apply in 30 litres water per hectare.
	75 ml / ha (2.5 ml / 10 l water)	Ground application: Full cover spray in 300 litres water per hectare.
Macadamias Stink bug	20 ml / 100 l water	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 applications per season might be needed.
Peaches Fruit flies	10 ml / 100 l water (HV: 250 to 350 ml / ha) (1 ml / 10 l water)	Full cover spray at 14-day intervals, beginning 8 weeks prior to harvest. In the summer rainfall area, spraying should commence not later than third week of December.
False codling moth	5 ml / 100 l water (HV: 125 to 175 ml / ha) (0.5 ml / 10 l water)	Early cultivars: Full cover spray at 14-day intervals, beginning 6 weeks prior to harvest.
		Late cultivars: Full cover spray at 14-day intervals, beginning 8 weeks prior to harvest. In the summer rainfall region application should commence not later than the third week of December.
Codling moth	5 ml / 100 l water (HV: 125 to 175 ml / ha) (0.5 ml / 10 l water)	Full cover spray at 75 % petal drop. Repeat at 14- to 21-day intervals depending on the level of infestation.

Crop / Pest	Dosage Rate	Remarks
<u>Peaches</u> African bollworm	Warning Against Resistance: Refer to “ RESISTANCE MANAGEMENT ” above.	
	5 ml / 100 l water (HV: 125 to 175 ml / ha) (0.5 ml / 10 l water)	Full cover application at 75 % petal drop or when the pest is noticed.
	10 ml / 100 l water (HV: 250 to 350 ml / ha) (1 ml / 10 l water)	Apply as soon as damage is noticed. Repeat 4 weeks later if necessary.
<u>Maize & Sweetcorn</u> Cutworm	0.33ml / 100 m plant row (1 ml / 10 l water)	<u>Row treatment:</u> Apply post-emergence to the crop as soon as the pest is noticed, in at least 3 litres water per 100-meter row. Apply in a band at least 30 cm wide over the row. Ensure that soil is moist right to the surface at the time of application. Later infestation may require a second application.
	100 ml / ha (3 ml / 10 l water)	<u>Overall application:</u> Ground application in 300 litres water per hectare.
	100 ml / ha	<u>Aerial application:</u> Apply according to the above conditions in 30 litres water per hectare.
African bollworm	Warning Against Resistance: Refer to “ RESISTANCE MANAGEMENT ” above.	
	1.5 ml / 100 m plant row (5 ml / 10 l water)	Apply when the pest is noticed but not later than 80 % beard emergence. <u>Ground application:</u> If row width allows ground application, use not less than 3 litres water per 100 meters. Direct nozzles towards the heads.
	150 ml / ha	<u>Aerial application:</u> Apply in 30 litres water per hectare.
Stalk borer (<i>Busseola</i>)	3.5 ml / 100 m plant row (12 ml / 10 l water)	<u>Ground application:</u> Preventative treatment against young caterpillars based on scouting for eggs on plants. Do weekly scouting from 2 to 7 weeks after crop emergence, by inspecting at least 100 plants randomly per field. Apply 7 days after 2.5 % or more plants are found to be infested with eggs. If eggs have hatched, spray at the 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-meter row.
	350 ml / ha	<u>Aerial application:</u> Apply in 30 litres water according to the directions above for ground application.
	150 ml / ha	<u>Sweetcorn:</u> Start spraying 3 weeks after planting and repeat with 10- to 14-day intervals until the ears appear. Use in not less than 3 litres water per 100-metre row. Will control <i>Busseola</i> stalkborer, African bollworm, and suppress Leafhoppers.
Pink stalk borer	1.5 ml / 100 m plant row (5 ml / 10 l water)	<u>Aerial application:</u> Apply as above in 30 litres water per hectare.
	150 ml / ha	

Crop / Pest	Dosage Rate	Remarks
<u>Pastures & Lawns</u> Army worm	150 ml / ha (5 ml / 10 l water)	A pest of grasses only (veldt, grazing, grass crops and lawns). Ground or aerial application. (Where applicable). Ground application: Apply in at least 300 litres water per hectare, to ensure good coverage. Aerial application: Apply in at least 30 litres water per hectare.
<u>Various row crops</u> Cutworm	0.33 ml / 100 m plant row (1 ml / 10 l water)	Apply only if the top 3 cm of the soil is moist. Apply post emergence over the row as a 30 cm band in 3 litres water per 100-meter row.
	100 ml / ha (3 ml / 10 l water)	Overall application in 300 litres water per hectare or aerial application in 30 litres water per hectare.
<u>Peas</u> African bollworm and Lesser army worm	Warning Against Resistance: Refer to “ RESISTANCE MANAGEMENT ” above. Commence application as soon as eggs or larvae occur on the plants. Repeat at 10- to 14-day intervals, depending on infestation.	
	150 ml / ha (7.5 ml / 10 l water)	Ground application: Apply in minimum 200 litres per hectare water.
	150 ml / ha	Aerial application: Apply in 30 litres water per hectare.
<u>Sorghum</u> Cutworm	0.33 ml / 100 m plant row (1 ml / 10 l water)	Row treatment: Apply post emergence to the crop as soon as the 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 the time of application. Later infestation may require a second application.
	100 ml / ha (3 ml / 10 l water)	Aerial application: Apply according to the above conditions in 30 litres water.
African bollworm	Warning Against Resistance: Refer to “ RESISTANCE MANAGEMENT ” above.	
	1.5 ml / 100 m plant row (5 ml / 10 l water)	Apply when pest is noticed. If bollworms are concealed in the ear, control may be less effective. Later infestation may require a second application. Ground application: Direct application onto ears. Apply in not less than 3 litres water per 100-meter row.
	150 ml / ha	Aerial application: Apply in 30 litres water.
Stalk borer (<i>Busseola</i>)	350 ml / ha (12 ml / 10 l water)	Aerial application: As for maize.

<i>Crop / Pest</i>	<i>Dosage Rate</i>	<i>Remarks</i>
<u>Tomatoes</u> African bollworm	Warning Against Resistance: Refer to “RESISTANCE MANAGEMENT” above.	
	15 ml / 100 ℓ water (1.5 ml / 10 ℓ water)	<u>Ground application:</u> Apply as a full cover spray at the first signs of infestation. Repeat the application at 7- to 10-day intervals.
		<u>High volume application:</u> Apply up to 500 litres spray mixture per hectare to plants up to 60 cm high and 1000 litres per hectare or more to plants higher than 60 cm, e.g., trellised tomatoes. Do not use more than 150 ml CYPERMETHRIN 200 EC per hectare.
	75 ml to 150 ml / ha	<u>Mistblowers:</u> Apply in 150 to 500 litres water per hectare. 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 200 EC per hectare.

The following product mentioned in this label may be replaced with equivalent products:

- **COMMODOBUFF** (L 5390 / N-AR 1107) = **AQUABUFF** (L 5451 / W 130060).

AQUABUFF is a registered product of **VILLA CROP PROTECTION (PTY) LTD.**

COMMODOBUFF is a registered product of **UNIVERSAL CROP PROTECTION (PTY) LTD.**