



Avi-Sipermetrin

Reg. No. / Nr. L3980 Act No. / Wet Nr. 36 of / van 1947, Botswana W130049, Namibia NAR1153

GROUP 3A INSECTICIDE

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

'n Emulgeerbare konsentraat kontak- en maag insekdoder vir die beheer van landbouplae soos aangedui.

Active Ingredients / Aktiewe Bestanddele:

Cypermethrin (Pyrethroid) / Sipermetrien (Pyrethroid) 200 g/ℓ



Registered and Distributed by / Geregistreer en Versprei deur:

AVIMA (Pty.) Ltd.

Reg. No. 1961/001744/07

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BATCH NO.:
LOT NR.:

DATE OF MANUFACTURE: See printed information on container
VERVAARDIGINGSDATUM:

EXPIRY DATE:
VERVALDATUM:

UN NO.:
VN NR.:

Content
Inhoud

ℓ



IMPORTANT / BELANGRIK:
Read label before use /
Lees etiket voor gebruik



**HARMFUL
SKADELIK**



WARNINGS:

Allow the following number of days between the last application and harvesting or grazing:

Macadamias	90
Grapes, Sorghum, Cotton	28
Apples, Pears, Table Peaches, Maize, Lucerne	14
Beans, Soyabeans, Peas, Groundnuts, (Hay)	7
Tomatoes, Cruciferae	4
Canning peaches	3

Poisonous if swallowed and moderately toxic by skin contact. Toxic to fish and bees and moderately toxic to wild life. Keep out of reach of children, uninformed persons and animals. Store away from food and feedstuffs. Flammable - keep away from fire or sparks.

AERIAL APPLICATION:

Notify all the inhabitants of the immediate area to be treated of your intention and issue the necessary warnings. Do not spray over the adjacent areas or water, or allow spray to drift there.

WARNING AGAINST RESISTANCE: See Use Restrictions below.

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; compatibility with other substance 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, environment or harm to man or animal or the lack of performance of the remedy concerned due to the 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:

Wear a hat, face shield, cotton overalls and shoes when applying the spray mixture. When preparing the spray mixture wear in addition a respirator and rubber gloves. Avoid skin contact and inhalation of the spray mist. Avoid eye splashes. Wash immediately after accidental skin contact. Wash overalls daily. Do not eat, drink or smoke while using, or before having washed hands and face.

Empty containers must be triple rinsed after use, punctured and recycled. See www.croplife.co.za under waste management for specific guidelines and a list of recyclers. Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment. Prevent contamination of food, feeds, drinking water and eating utensils.

DIRECTIONS FOR USE: Use only as directed.

MIXING INSTRUCTIONS:

Half fill the spray tank with clean water. Measure out the required quantity of **AVI-SIPERMETRIN** and premix this with at least 10 liters water. Add this to the spray tank while agitating the mixture. Fill the spray tank while maintaining agitation to ensure thorough mixing of the spraying mixture before spraying commences and maintain agitation during the whole spraying operation.

AERIAL APPLICATION:

In the case of aerial application by fixed wing aircraft it is recommended that the swath width should not exceed in the case of Piper Pawnee or an AgCat, 23m for an 450B, and 25m for an Agwagon or Trush Commander. In the case of rotary wing aircraft it is recommended that a flying speed of 80km/h should not be exceeded. Cease application when wind speed exceeds 15km/h or if the difference in readings on wet and dry bulb thermometers exceeds 8°C.

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 **AVI-SIPERMETRIN** can be harmed by 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 **AVI-SIPERMETRIN**. 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.

COMPATIBILITY:

Not compatible with several adjuvants or any spray oils, sea weed extracts, amitraz, Dodine, Tokhuthion and Kilval.

USE RESTRICTIONS:

Resistance of American 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 1st January to 1st March.

ALL OTHER CROPS:

Do not apply more than two applications per growing season. Do not re-spray a suspected pyrethroid control failure with any synthetic pyrethroid even at a corrective dosage rate. Use a product from a different chemical group.

CROP/ PEST	mℓ/100 ℓ WATER	mℓ/ha	DIRECTIONS FOR APPLICATION
TOMATOES American Bollworm	15	75-150	GROUND APPLICATION: Apply as full cover spray at the first signs of infestation. Repeat the application at 7 -10 day intervals or as required by an inspection of the crop. (Also see General Directions under Directions for Use) Warning against American Bollworm resistance: See Use Restrictions above. HIGH VOLUME: Apply up to 500 ℓ spray mixture/ha to plants up to 60 cm high and 1000 ℓ/ha or more to plants higher than 60 cm e.g. Trellised tomatoes. Do not use more than 150 mℓ AVI-SIPERMETRIN /ha. MIST BLOWERS: Apply in 150 to 500 mℓ water/ha. Use the lower rate and volume for plants higher than 60 cm e.g. Trellised tomatoes. Do not use more than 150 mℓ AVI-SIPERMETRIN /ha.
APPLES AND PEARS Snout Beetle	10		Apply 2 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 American Bollworm and Codling Moth. CAUTION: Toxic to bees.
Codling Moth Leafrollers	5		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 application. Repeat every 21 days in orchard when low infestations are experienced. CAUTION: Toxic to bees.
American Bollworm	5		Apply as corrective spray. Do not apply before 75% petal drop. (Also see General Directions under Directions for Use) Warning against American Bollworm resistance: See Use Restrictions above.
WINE AND TABLE GRAPES Snout Beetle	10		Apply as full cover application ensuring thorough coverage of all parts of the plant. Apply first spray at signs of movement and/or feeding of snout beetles is detected. Repeat within 21-28 days as 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

CROP/ PEST	mℓ/100 ℓ WATER	mℓ/ha	DIRECTIONS FOR APPLICATION
PEACHES Fruit Flies Codling Moth American Bollworm Snout Beetles	10 5 5 5 10	250-350 125-175 125-175 125-175 250-350	Full cover spray at 14 day intervals beginning 8 weeks prior to harvest. In summer rainfall region application should not commence later than the third week of December. 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 summer rainfall region application should not commence later than the third week of December. Full cover spray at 75% petal drop. Repeat at 14 -21 day intervals depending on level of infestation. Full cover application at 75% petal drop or when pest is noticed. (Also see General Directions under Directions for Use) Warning against American Bollworm resistance: See Use Restrictions above. Apply as soon as damage is noticed. Repeat 4 weeks later if necessary.
GROUNDNUTS AND BEANS (Including soyabeans) American Bollworm		150	Commence application as soon as eggs or larvae are noticed on the plants. Repeat the application at 14 day intervals or as directed by inspection of the crop. GROUND APPLICATION: Apply in not less than 200 ℓ water/ha. (Also see General Directions under Directions for Use) Warning against American Bollworm resistance: See Use Restrictions above. AERIAL APPLICATION: Apply in 30ℓ water/ha
PEAS American Bollworm & Lesser Army Worm		150	GROUND APPLICATION: Apply in not less than 200ℓ water/ha. ((Also see General Directions under Directions for Use) Warning against American Bollworm resistance: See Use Restrictions above. AERIAL APPLICATION: Apply in 30 ℓ water/ha
WATTLE PLANTATIONS Wattle Bagworm		100	AERIAL APPLICATION: Commence spraying in Nov/Dec. When Wattle Bagworm are most active. Apply in 30 ℓ water/ha.

CROP/ PEST	mℓ/100 ℓ WATER	mℓ/ha	DIRECTIONS FOR APPLICATION
LUCERNE Caterpillar		75	AERIAL APPLICATION: Apply in 30ℓ water/ha. GROUND APPLICATION: Full cover spray in 300 ℓ water/ha.
CRUCIFERAE American Bollworm, Caterpillars of the Diamondback Moth and Greater Cabbage Moth, Thrips.	10		Ensure good wetting of the plant by adding Surfowett. Commence spraying at the first signs of pest and repeat sprays 10-14 days. This treatment will suppress aphids in a programme spray. (Also see General Directions under Directions for Use) Warning against American Bollworm resistance: See Use Restrictions above.
MAIZE AND SWEETCORN Cutworm	0.33 mℓ / 100m row		ROW TREATMENT: Apply post emergence to the crop as soon as pest is noticed in at least 3 ℓ of water/100m row. Apply in a band at least 30cm wide over the row. Ensure that the soil is moist right to the surface at the time of application. Later infestation may require second application.
American Bollworm	1.5 mℓ / 100m row	100	OVERALL APPLICATION: Ground application in 300 ℓ water/ha.
		100	AERIAL APPLICATION: Apply according to the above conditions in 30 ℓ water/ha. GROUND APPLICATION: If row width allows ground application, use no less than 2 ℓ water/100m. Direct nozzles towards the heads. (Also see General Directions under Directions for Use) Warning against American Bollworm resistance: See Use Restrictions above.
Stalkborer (<i>Busseola</i>)	3.5 mℓ / 100m row	150	AERIAL APPLICATION: Apply in 30 ℓ water/ha. Apply when pest is noticed, but not later than 80% beard emergence. GROUND APPLICATION: Preventive treatment against young caterpillars based on scouting for eggs on plants. Apply 7 days after 5% or more plants are found to be infested with eggs. Do weekly scouting from 2-7 weeks after crop emergence by inspecting at least 100 plants at random per field. If eggs have hatched, spray at their 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, ie: 3 ℓ water/100m row. This will result in 350 mℓ/ha on 1m row width and 175 mℓ /ha on 2m row width.

CROP/ PEST	mℓ/100 ℓ WATER	mℓ/ha	DIRECTIONS FOR APPLICATION
Pink Stalkborer	1.5 mℓ / 100m row	150	<p>AERIAL APPLICATION: Apply in 30 ℓ water according to the directions above for ground application.</p> <p>SWEETCORN: Start spraying 3 weeks after planting and repeat within 10-14 day intervals until the last spray when beard appears. Use no less than 3 ℓ water/100m row. Will suppress Stalkborer (<i>Busseola</i>), American Bollworm and Leafhoppers.</p> <p>AERIAL APPLICATION: Apply as above in 30 ℓ water/ha.</p>
SORGUM Cutworm	0.33 mℓ / 100m row 1.5 mℓ / 100m row	100 150 350	<p>ROW TREATMENT: Apply post emergence to the crop as soon as pest is noticed in at least 3 ℓ of water/100m row. Apply in a band at least 30cm wide over the row. Ensure that the soil is moist right to the surface at the time of application. Later infestation may require second application.</p> <p>AERIAL APPLICATION: Apply according to the above conditions in 30 ℓ water/ha.</p> <p>GROUND APPLICATION: Direct application onto ears. Apply no less than 2 ℓ water/100m, not later than 80% beard emergence. (Also see General Directions under Directions for Use) Warning against American Bollworm resistance: See Use Restrictions above.</p> <p>AERIAL APPLICATION: Apply in 30 ℓ water not later than 80% beard emergence. Apply when pest is noticed. If bollworm is concealed in the ear, control may be less effective. Later infestation may require a second application.</p> <p>AERIAL APPLICATION: As for maize.</p>
VARIOUS CROPS Cutworms, Armyworm	0.33 mℓ / 100m row	100 150	<p>Apply only if the top 3cm of the soil is moist.</p> <p>ROW TREATMENT: Post emergence over the row in 3 ℓ of water as a 30cm band.</p> <p>Overall application in 300 ℓ water/ha or</p> <p>Aerial application in 30 ℓ water/ha.</p> <p>A pest of grasses only (veldt, grazing and grass crops).</p> <p>Ground or Aerial Application.</p>
MACADAMIAS Stink Bug	20 mℓ		<p>Apply as high volume spray when the nuts are marble size (Oct-Nov), and repeat 4 weeks later. A third application may be necessary 4 weeks after the 2nd.</p>

CROP/ PEST	mℓ/100 ℓ WATER	mℓ/ha	DIRECTIONS FOR APPLICATION
FORESTRY Pine Emperor Moth		50	AERIAL APPLICATION: In 30 ℓ water. This caterpillar defoliates Pines, Eucalyptus and Proteas.
Willow Tree Emperor Moth Larvae		100	AERIAL APPLICATION: In 30ℓ water. This caterpillar defoliates Willows, Acacias, Poplars and Oakes.

COTTON:

In order to comply with the principles of pest management and integrated control measures Avi-Sipermetrin is intended to be used during the period of fruiting from peak flowering until boll has split ie. Approximately 10-22 weeks after plant emergence. Avi-Sipermetrin is primarily intended for use as a preventative control programme applied at 7 days (prefer ably) or 14 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. After boll split use as determined by scouting, the dosage for fortnightly. Cotton older than 12 weeks after plant emergence is considered as mature.

CROP/ PEST	mℓ/100 ℓ WATER	mℓ/ha	DIRECTIONS FOR APPLICATION
COTTON All Bollworms: American Bollworm, Red and Spiny Bollworms, Stainers			PREVENTITIVE: Apply as determined by scouting for eggs ie. Heliothis bollworm an average of 0.5 eggs/plant; red bollworm: 0.25 eggs/plant; Spiny bollworm: when 2 or more larvae are found during scout ing, after scouting 24 plants at random in lands up to 15 ha in extent. Scouting should be done at weekly intervals from flowering until the boll splits. Stainers will be controlled during regular applications for control of bollworm (Also see General Directions under Directions for Use) Warning against American Bollworm resistance: See Use Restrictions above.
(Weekly Protection)	75	75-150	GROUND APPLICATION: With boom and nozzles. Ensure thorough coverage of plants. For plants smaller than 60 cm apply 100 ℓ spray mixture/ha. For taller plants increase the volume of spray mixture to 200 ℓ/ha for mature cotton. Do not use less than 150 mℓ AVI-SIPERMETRIN /ha on mature cotton.
		87-175	MIST BLOWER: Use a lower dosage on cotton less than 60 cm high and higher dosage rate on cotton taller than 60 cm. Do not use less than 150 mℓ AVI-SIPERMETRIN /ha on mature cotton. AERIAL APPLICATION: As for mistblower application by applying in 30 ℓ. GROUND APPLICATION: With boom and nozzles. As above for weekly protection. Do use less than 300 mℓ AVI-SIPERMETRIN /ha on mature cotton.

CROP/ PEST	mℓ/100 ℓ WATER	mℓ/ha	DIRECTIONS FOR APPLICATION
(Fortnightly Protection) All Bollworms: Leaf Eaters ie. <i>Plusia</i> and <i>Spodoptera</i>	150	150-300	MIST BLOWER: As above for weekly protection. Do not use less than 300 mℓ AVI-SIPERMETRIN /ha on mature cotton.
		175-350	AERIAL APPLICATION: As for mistblower application by applying in 30 mℓ water.
	250		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 inside 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 AVI-SIPERMETRIN 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 or 500	GROUND APPLICATION: With boom and nozzles. Ensure thorough coverage of plants. For plants smaller than 60 cm apply 100 ℓ spray mixture/ha. For taller plants increase the volume of spray mixture gradually to 200 ℓ for mature cotton. Do not use less than 500 ℓ AVI-SIPERMETRIN /ha on mature cotton.
		250 or 500	MIST BLOWER: Use a lower dosage on cotton less than 60 cm. Do not use less than 500 mℓ AVI-SIPERMETRIN /ha on mature cotton.
			AERIAL APPLICATION: As for mistblower application by applying in 30 mℓ water.