

EMMA

Reg. No.: L 9022 Act /Wet No. 36 of/van 1947

A water soluble granular insecticide for the control of Africa Bollworm and semi-looper in tomatoes, Codling moth in apples, Diamondback moth in cabbage, Fall Armyworm in maize, sweetcorn and potato, Longhorn beetle and Eldana in sugarcane and Macadamia Nut Borer in Tree Nuts.

'n Wateroplosbare korrel insekdoder vir die beheer van Afrika bolwurm en valslandmeter in tamaties, Kodlingmot in appels, Ruitrugmot in kool, Herfskommandowurm in Mielies, Suikermielies & Aartappels en Langhoringboktor en Eldana in Suikerriet en Makadamianeutboorder in Neutbome.

IRAC INSECTICIDE GROUP CODE:	6	IRAC INSEKDODER GROEP KODE:
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ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL:

Emamectin benzoate/ Emamektien bensoaat.....50 g/kg

Registration holder / Registrasiehouer:
Arysta LifeScience 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

kg

Batch No.
Date of manufacture:

Lot Nr.:
Datum van vervaardiging:

U.N. No. 3077



READ THE LABEL IN DETAIL BEFORE OPENING THE CONTAINER. / LEES DIE ETIKET VOLLEDIG VOORDAT DIE HOUER OOPGEMAAK WORD.
For full particulars, see enclosed leaflet. / Vir volledige besonderhede, sien ingeslote pamflet.

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ARYSTA LifeScience South Africa (Pty) Ltd

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7 Sunbury Office Park,

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Tel: 031 514 5600

CAUTION/VERSIGTIG

WARNINGS:

- **Withholding periods:** Minimum number of days between last application and harvest.

Apples.....	21 days
Tomatoes.....	1 day
Cabbages.....	7 days
Maize and Sweetcorn.....	14 days
Potatoes.....	14 days
Sugarcane.....	21 days
Tree Nuts.....	50 days

- Do not allow animals to feed on treated foliage.
- Handle with care.
- Harmful if swallowed or inhaled.
- May cause skin and eye irritation.
- Toxic to fish and aquatic invertebrates.
- Harmful to birds.
- Toxic to bees exposed to direct spray contact.
- Store in original container in a cool place, away from food and feed.
- Protect from light.
- Keep out of reach of children, uninformed persona and animals.
- Unprotected workers must vacate the area being treated.
- Re-entry: Do not enter treated area until spray deposit has dried, unless wearing protective clothing.

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 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 or registration holder in the event of any uncertainty.

PRECAUTIONS:

- Avoid eye and skin contact.
- Do not inhale spray mist.
- Wash with soap and water immediately after use.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke while mixing or applying the product or before washing hands and face.
- Wear suitable protective clothing when mixing – protective gloves, boots and face shield.
- Do not spray during periods of bee activity.

- Avoid excessive spray drift – do not treat if wind velocity exceeds 2 meters per second (7 km per hour)
- Clean applicator after use. Dispose of rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Do not use the empty container for any other purpose.

RESISTANCE WARNING:

For resistance management, **EMMA** is a group code **6** insecticide. Any insect population may contain individuals naturally resistant to **EMMA** and any other group code **6** insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly and exclusively in programs. **EMMA** or any other group code **6** insecticides may not control these resistant insects.

To prevent insecticide resistance:

- Avoid excessive repeated use of insecticides from the same insecticide group code. Alternate or tank mix with registered 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.

USE RESTRICTIONS:

EMERGENCY REGISTRATION:

The following were granted as emergency registrations: the control of Fall Army Worm (*Spodoptera frugiperda*) on maize, sweetcorn and potatoes; Longhorn Beetle (*Cacosceles (Zelogenes) newmani* (Thomson.)) in sugarcane and Macadamia Nut Borer (*Thaumatotibia (=Cryptophlebia) batrachopa* (Meyrick, 1908)) in Tree Nuts. Products approved for emergency registration are still under going evaluation for efficacy, selectivity and residues. Please note that human and environmental safety have already been approved.

DIRECTIONS FOR USE:

Use only as directed.

Thorough and even coverage of the crop is essential. Do not apply during the heat of the day or if the plants are wet or if rain is imminent

MIXING INSTRUCTIONS:

Fill the spray tank to a quarter with clean water. Measure out the required quantity of **EMMA** and add to the tank. Fill spray tank with water while maintaining agitation to ensure thorough mixing. Maintain agitation during spraying. Use the prepared mixture immediately. Do not prepare more spray mixture than is needed for immediate application. Do not allow to stand overnight.

CROP/PEST	DOSAGE	REMARKS
<u>TOMATOES</u> Africa Bollworm <i>(Helicoverpa armigera)</i>	200g/1000 ℓ	Apply as soon as pest is noticed in a block of two applications, 7 days apart. Do not apply the second EMMA block application within 3 weeks of the first block application. If reinfestation occurs within 3 weeks of the second EMMA application, a different insecticide group should be used e.g. group 5 (spinosad), group 13 (chlorfenapyr) or group 22 (indoxacarb) Do not exceed 4 applications per crop cycle. Do not use less than 200 g EMMA /ha. Use a penetrant/wetter or light mineral oil with EMMA . Do not add a sticker.
Tomato Semi-looper <i>(Chrysodeixis acuta)</i>	200g/1000 ℓ	
<u>APPLES</u> Codling Moth <i>(Cydia Pomonella)</i>	15 - 20 g EMMA + 30g Fenoxycarb 250 WG at 14 day intervals	Commence application at onset of the 1 st , 2 nd or 3 rd generation. Ensure that an effective control programme precedes the Fenoxycarb/ EMMA programme. Use the higher EMMA rate when targeting the 3 rd

CROP/PEST	DOSAGE	REMARKS
		generation or cases of high 2 nd generation infestation pressure, i.e. in orchards with a history of high Codling moth concentration or where fruit damage is evident when programme commences.
CABBAGE Diamondback Moth <i>(Plutella xylostella)</i>	160 g/100 ℓ (do not exceed more than 210 ℓ of spray mixture/ha)	Spray at 1 st signs of infestation as indicated by spray thresholds. Do not spray more than 4 applications per year.
MAIZE and SWEETCORN Fall Armyworm <i>(Spodoptera frugiperda)</i>	Tractor application: 300 g EMMA /ha + 100 ml SILHOUETTE /ha	It is recommended to scout at regular intervals. When larvae are first noticed on the foliage commence first application. EMMA will not control larvae which have already entered the cob. Apply first application and then continue to scout. Follow up with a second application 10 to 14 days later if required. Do not exceed 2 applications. Apply in 200 ℓ water/ha and ensure proper coverage of the full plant.
POTATOES Fall Armyworm <i>(Spodoptera frugiperda)</i>	Tractor application: 300 g EMMA /ha + 100 ml SILHOUETTE /ha	It is recommended to scout at regular intervals. When larvae are first noticed on the foliage commence with the first application. It is recommended to commence application when larvae are on average 2mm and smaller. Apply first application and then continue to scout. Follow up with a second application 7 to 14 days later if required. Do not exceed 2 applications. Apply in 200 to 400 ℓ water/ha and ensure proper coverage of the full plant.
SUGARCANE Eldana <i>(Eldana saccharina)</i> Longhorn Beetle <i>(Cacosceles (Zelogenes) newmani</i> <i>(Thomson.))</i>	300 g EMMA + 1.5 ℓ SILHOUETTE in 1000 ℓ water /ha OR 3 g EMMA + 15 ml SILHOUETTE in 10 ℓ water per 100m row	Spray within 3 days after cutting cane. For maximum effect, the cut ends of the stubble must not be dried out. The spray swath must be directed onto the row. The spray swath must be free of excessive trash to ensure that the spray mixture comes into direct contact with the cane stool and the cut stumps. Thorough wetting is essential. Do not use any other adjuvant than what is specified on the label. Do not apply more than one application per growing season.
TREE NUTS (Includes almonds, pecans, hazelnuts, macadamias, cashew nuts and pistachio nuts) Macadamia nut borer <i>(MNB), Thaumatotibia (=Cryptophlebia) batrachopa</i> (Meyrick, 1908)	20 g EMMA + 40 g ALLICE 20 SP /100 ℓ water AND/OR 30 g EMMA /100 ℓ water	Use appropriate scouting and monitoring techniques to predict the onset of pest infestation. In orchards with a known history of Macadamia nut borer infestation or a predicted high level of infestation, make the first two applications with EMMA + ALLICE 20 SP mixture. Thereafter, continue the programme with EMMA solo. Commence application when pest eggs are hatching but before the neonate larvae penetrate the nuts. A medium cover spray is essential to ensure all nut clusters are adequately protected.

CROP/PEST	DOSAGE	REMARKS
		<p>For best results, a spray oil is recommended when EMMA is applied as a solo treatment.</p> <p>Repeat application after 7 to 10 days if high infestations of MNB persist.</p> <p>Do not exceed more than 2 applications of the mixture of EMMA + ALLICE 20 SP per growing season.</p> <p>Do not exceed more than 4 EMMA applications per season either in the mixture or solo.</p>

ACKNOWLEDGEMENT:

- ALLICE 20 SP – [L8723, Act 36 of 1947] – Arysta LifeScience South Africa (Pty) Ltd
- SILHOUETTE – [L8654, Act 36 of 1947] – Volcano Agrosience (Pty) Ltd