

LAMBDA EC

Reg. No.: L8546 Act /Wet No. 36/1947

An emulsifiable concentrate contact and stomach insecticide for the control of insects on crops as mentioned below.

'n Emulgeerbare konsentraat kontak- en maag insekdoder vir die beheer van insekte op gewasse soos hieronder aangedui.

IRAC INSECTICIDE GROUP CODE:	3	IRAC INSEKDODER GROEP KODE:
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Active ingredient/Aktiewe bestanddeel:

Lambda-cyhalothrin (pyrethroid) / lambda-sihalotrin (piretroïed)..... 50 g/l

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
L

Batch No.
 Date of manufacture:

Lot. Nr.:
 Datum van vervaardiging:

U.N. No. 3352



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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HARMFUL



SKADELIK

WARNINGS:

Withholding periods:

Allow the following number of days between last application and harvest of the crops listed below:	
Apples, Apricots, Nectarines, Pears, Plums and Table Peaches:	14 days
Potatoes, Peas and Canning Peaches:	3 days
Dry Beans, Maize and Sweetcorn:	7 days
Green Beans:	1 day
Cotton (grazing), Sorghum, Wheat, Soy Beans (grazing) and Wine & Table Grapes:	28 days
Lucerne (grazing):	8 days
Tomatoes, Cruciferae and Lupins (grazing):	2 days
Macadamias:	82 days

Note: The maximum residue levels will not be exceeded, provided applications are applied as herewith prescribed. When fruit is destined for the export market, the institution of concern must be contacted, prior to the use of **LAMBDA EC** in a spray programme.

- Handle with care.
- Irritating to eyes and skin.
- Harmful when swallowed, inhaled or absorbed through the skin.
- Very toxic to fish.
- Use the product according to directions to limit the risk towards bees, beneficial pest parasites, beneficial predators and fish.
- Do not apply when bees are most active. Do not direct spray towards bee hives or allow spray drift in their vicinity. Lambda-cyhalothrin residues have a visible effect upon foraging honeybees, provided the dosage rate of 300 ml per hectare is not exceeded.
- Do not spray over or allow drift to contaminate water bodies such as dams, ponds, rivers, streams or fish hatcheries.
- Do not allow spray to drift to citrus orchards under integrated biological control for red scale.
- Allow a buffer strip of minimum 100 metres between a cotton field and a citrus orchard.
- Store under lock and key in a cool, dry place away from food, feeds, fertilizer and drinking water.
- Keep out of reach of children, uninformed persons and animals.
- Re-entry: Do not enter treated area within 1 day after treatment unless wearing protective clothing.
- **In case of poisoning call a doctor and make this label available to him.**

Aerial application:

Notify all inhabitants in the immediate vicinity of the area 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. The action and effect thereof may be effected by factors such as abnormal soil, climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label, 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:

- Avoid inhalation of the spray mist or fumes.
- Avoid eye and skin contact.
- Wear a face mask, rubber gloves and boots and when handling, preparing and applying the spray mixture.
- Wash with soap and water after use or in the event of accidental skin contact.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke while mixing and applying the product before washing hands and face and change of clothing.
- **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 rinsing to the contents of the spray tank before destroying the container in the prescribed manner.
- Destroy the container by perforation and flattening and dispose of it in a safe way.
- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

SYMPTOMS OF HUMAN POISONING:

No cases of poisoning have been described in the general population and none from occupational exposure. However, symptoms that may arise if the product is mishandled and overexposure occurs are: nausea, vomiting, diarrhoea, abdominal pain, ataxia, unsteady gait, hyperexcitability, salivation, tremors and incontinence. Larger dose may cause convulsions and loss of consciousness.

FIRST AID TREATMENT:

Skin: Remove contaminated clothing, shoes and leather goods. Wash skin gently and thoroughly with cold water and non-abrasive soap. Do not rub skin. Apply olive oil to affected areas for prompt relief. Get medical attention if irritation occurs and persists.

Eyes: Rinse eyes with clean water for at least 20 minutes. If irritation occurs and persists, obtain medical attention.

Inhalation: If vapours or mists have been inhaled and irritation has developed, remove the source of contamination or move victim to fresh air. If breathing difficulty or irritation occurs and persists, obtain medical attention.

Ingestion: Have victim rinse mouth thoroughly with water. **Do not induce vomiting, due to aromatic solvent. Obtain medical advice immediately.** Never give anything by mouth to an

unconscious person. Treat respiratory difficulty with artificial respiration and oxygen. Administration of oxygen must be performed by qualified medical personnel.

NOTE TO PHYSICIAN:

There is no specific antidote available. This product contains materials that may cause severe pneumonitis if aspirated. In cases of ingestion, consider gastric lavage, however prevent aspiration. Observe patient for respiratory difficulty from aspiration pneumonitis. Treat symptomatically and supportively.

RESISTANCE WARNING:

LAMBDA EC is a group code **3** insecticide. Any insect population may contain individuals naturally resistant to **LAMBDA EC** 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 **LAMBDA EC** 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 the 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 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 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 pyrethroids after unsuccessful control, even at a corrective dosage rate. Use a product from a different chemical group.

USE RESTRICTIONS:

- 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 shortly after plant desiccation, 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.
- When **LAMBDA 50EC** is applied to densely growing crops, the efficacy of the spray mixture may be adversely affected.
- Do not apply on plants that are wet from dew or rain.

DIRECTIONS FOR USE: Use only as directed.

Compatibility:

- Do not mix **LAMBDA EC** with seaweed extracts.
- The compatibility of **LAMBDA EC** with other product may be influenced by several factors. Since it is not possible for Tsunami Plant Protection to test all possible combinations, the onus lies with the user to always carry out a compatibility test before such tank mixture is sprayed.
- When **LAMBDA EC** is used in conjunction with any other agricultural remedy, all **WARNINGS, PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on that label, must be adhered to.

Mixing instructions:

- Half fill the spray tank with clean water.
- Effectiveness of **LAMBDA EC** can be affected by very hard water (>1000 p.p.m. solutes), and/or water with a high or low pH value. The ideal pH is between 5 and 8.
- Add an acidifier/buffer to the volume of water in mixing tank and ensure pH is correct.
- Take approximately 10 litres of this pH corrected water from the mixing tank and thoroughly mix with the required volume **LAMBDA EC**.
- If any other product is to be mixed with **LAMBDA EC**, the required volume of this product must be pre-mixed in a similar way.
- Agitate the water in the spray tank and then add the product(s) to the tank in the following sequence (as applicable): acidifier/buffer or adjuvant, suspension concentrate, water soluble concentrate, emulsifiable concentrate.
- Fill the spray tank with water to the required level while maintaining agitation to ensure thorough mixing.
- Maintain agitation during application.
- Prepared spray mixtures must not be left in the spray tank for any length of time, e.g. overnight.

Application:

- All 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.
- Ensure that thorough penetration and wetting is obtained.
- Monitor efficacy within 3 days after application. A further application may be necessary if unacceptable levels of control have been obtained.

Ground application:

- Use hollow cone nozzles that produce a medium to fine droplet spectrum with conventional high volume spray equipment.
- Calibrate the spraying equipment before application and ensure correct application.
- Ensure an even distribution of the spray mixture over the whole target area.

Aerial application:

Aerial application of **LAMBDA 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 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 kilometres 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.

Pivot Chemigation

- The system must have a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent contamination of the water source from back flow.
- The pesticide injection pipeline must have a functional automatic quick-closing check valve to prevent the flow of liquid back towards the injection pump.
- The pesticide injection line should also have a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn out of the supply tank when the irrigation system is either automatically or manually closed down.
- The system must have functioning interlocking controls to shut off the pesticide injector pump automatically when the water-pump motor stops.
- The irrigation line or water-pump must include a functional pressure switch, which will stop the water-pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind conditions favour drift beyond the area intended for treatment.
- **Important:** Use very clean water for pivot irrigation application. Water must be free of silt, clay and organic material, as pyrethroids tend to adhere to these particles and adversely affect the efficacy.

APPLICATION RATES:

Crop / Pest	Dosage rate	Remarks
All crops Cutworm		Apply LAMBDA EC as a preventative (pre-emergence) or corrective (post-emergence) treatment as follows: The soil must be well prepared, i.e free of clods and excessive plant debris. In situations where reduced tillage is practised, cutworm populations are usually high. The cutworm population must therefore be monitored after the first application and a second application be applied if necessary. Apply as an overall, corrective spray at the recommended rate. Apply ONLY if the top 3 cm of the soil is moist.
	0,23 ml/100 m row	<u>Ground application:</u> <u>Row treatment:</u> Apply at least 3 litres water in a 30 cm wide band over the row.
	70 ml /ha	<u>Broadcast application:</u> Apply in 300 litres water per hectare.
	70 ml /ha	<u>Aerial application:</u> Apply in 30 litres water per hectare.
Apples and Pears Banded fruit weevil <i>(Phylyctinus callosus)</i>	20 ml/100 ℓ water (500 to 700 ml/ha)	<u>Foliar application:</u> Apply two high volume sprays. The first 75% petal drop and the second four weeks later. If necessary a third spray can be applied four weeks after the second spray to prevent late season damage. A single spray or a programme of sprays for weevil at this dosage will also suppress or even control low populations of red spider mite. (red and two spotted strains).
	20 ml/100 ℓ water (200 ml/ha)	<u>Stem treatment:</u> Refer to the recommendations for stem treatment under “ Remarks ” for wine and table grapes below.
Codling moth	10 ml/100 ℓ water (250 to 350 ml/ha)	Apply as a high volume spray. Apply first spray at 75% petal drop and repeat at 14 to 18 day intervals.
Apples, Pears, Plums, Nectarines, Table and Canning Peaches, Apricots African bollworm	10 ml/100 ℓ water (250 to 350 ml/ha)	Apply at the first signs of an infestation and repeat if necessary Do not apply before 75% petal drop. Refer to Warning Against Resistance under “ WARNINGS ” above.
Cruciferae African bollworm	8 ml/100 ℓ water	Apply at the first signs of an infestation and repeat every 10 to 14 days. Apply in 500 to 1000 litres water per hectare. Add a suitable wetter and ensure good spray coverage. Refer to Warning Against Resistance under “ WARNINGS ” above.

Crop / Pest	Dosage rate	Remarks
Cotton: Important: Refer to the note "Use of synthetic pyrethroids in cotton" below.		
African bollworm, Red bollworm, Spiny bollworm & Cotton stainer bug	60 to 120 ml/ha	<u>Broadcast application:</u> Apply with boom and nozzle sprayer. Cotton must be treated with sufficient spray mixture for good coverage. Use the higher dosage rate for plants longer than 60 cm. Spray 100 litres spray mixture per hectare for plants smaller than 60 cm and 200 litres spray mixture per hectare for plants longer than 60 cm.
	0,6 to 1,2 ml/100 m row	<u>Tramline treatment:</u> Use the higher dosage rate for plants longer than 60 cm. Spray 50 litres spray mixture per hectare on cotton less than 60 cm and 100 litres spray mixture per hectare on plants longer than 60 cm. See ' Tramlines ' note below.
	66 to 132 ml/ha	<u>Aerial application:</u> Apply 30 litres water per hectare. Use lower dosage for plants smaller than 60 cm and the higher dosage for plants longer than 60 cm.
Cotton African & Red bollworms	88 ml to 120 ml/ha in sunflower oil	<u>ULV-application:</u> Use the higher dosage rate for plants longer than 60 cm. Only use acknowledged ULV spray equipment. Apply a total spray mixture volume of 3 litres per hectare. Make the indicated LAMBDA EC dosage up with sunflower oil to a spray volume of 3 litres. Refer to Warning Against Resistance under " WARNINGS " above.
Groundnuts, Dry Beans, Green Beans, Lucerne, Maize and Sweetcorn African bollworm	100 ml/ha	<u>Ground application:</u> Apply 250 to 500 litres water per hectare depending on plant size. Scout fields at weekly intervals from time of flowering and commence spraying when infestation is noticed. For optimum control, larvae should be sprayed when they are not bigger than 1 cm but before they exceed 2 cm in length. Scout fields weekly or 3 days after rain, and repeat application if necessary.
	100 ml/ha	<u>Aerial application:</u> (Groundnuts, Dry Beans and Green Beans only). Apply 30 litres water per hectare. Refer to warning against resistance under " WARNINGS " above.
Lucerne Lucerne caterpillar (<i>Colias electo</i>)	80 to 100 ml/ha	<u>Ground application:</u> Apply 250 to 500 litres water per hectare depending on plant size. Ensure thorough wetting of the crop. Use lower dosage rate on lucerne that is not standing dense. For optimum control, larvae should be sprayed when they are not bigger than 1 cm but before they exceed 2 cm in length. Follow-up applications may be necessary based on scouting to determine re-infestations.

Crop / Pest	Dosage rate	Remarks
Lupins African bollworm	110 to 120 ml/ha	<u>Ground application:</u> Apply in at least 300 litres water per hectare. Application should be done at a count of 1 to 2 larvae per m ² before pods are penetrated by the larvae. Apply lower dosage rate to young plants and higher rate to strongly growing plants.
	120 ml/ha	<u>Aerial application:</u> Apply in 30 litres water per hectare. Refer to Warning Against Resistance under “ WARNINGS ” above.
Macadamias Stink bug (<i>Nezara viridula</i>)	10 ml/100 l water	<u>High volume application:</u> Time of application is based on stinkbug numbers 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 to three applications per season might be necessary.
Maize Stemborer (<i>Chilo partellus</i>) (First and second generation).	1,2 ml/100 m row	<u>Ground application:</u> Apply as soon as 10 % plants show damage and direct spray into the funnel area of the plants. If necessary, apply a follow-up treatment shortly before tasseling. A minimum of 3 litres spray mixture must be applied per 100 metre row.
Stalkborer (<i>Busseola fusca</i>) (First and second generation).	1,2 ml/100 m row (120 ml/ha)	Apply as soon as eggs are found on 5 % of the plants or 10 % plants show damage. A second application may be required 10 to 14 days later. Direct spray into plant funnel area. Use at least 3 litres water per 100 metre row.
	120 ml/ha	<u>Aerial application:</u> Apply as above in 30 litres water per hectare.
Sweetcorn Pink stalkborer (<i>Sesamia calamistis</i>)	1,0 ml/100 m row	<u>Ground application:</u> Apply directly into the funnel area of the plants 14 days after emergence of the crop. A follow-up application 10 to 14 days later must be applied, and if necessary, up to flowering to control re-infestations. A minimum of 3,0 litre spray mixture per 100 m row must be applied.
Sorghum Maize stalkborer (<i>Busseola fusca</i>)	1,0 ml/100 m row	<u>Ground application:</u> Apply 3 litres water during the funnel stage when 5 % of the plants show shothole damage and borers have not yet migrated into the stalks. Direct application into funnel. <i>Chilo partellus</i> present at time of application will also be controlled.
	100 ml/ha	<u>Aerial application:</u> Apply 30 litres water per hectare.

Crop / Pest	Dosage rate	Remarks
Soy beans African bollworm	120 ml/ha	<u>Ground application:</u> Apply as soon as infestation is noticed and repeat if necessary. Apply in 200 to 300 litres water per hectare and ensure good coverage of the plants.
	120 ml/ha	<u>Aerial application:</u> Apply in at least 30 litres water per hectare. Refer to Warning Against Resistance under “ WARNINGS ” above.
Peas African bollworm	100 ml/ha	<u>Ground application:</u> Apply in at least 200 litres water per hectare at flowering of the peas at an infestation level of 2 larvae per 20 plants. A follow-up application might be necessary if re-infestation occurs.
	120 ml/ha	<u>Centre pivot application:</u> Refer to the instructions for centre pivot application under “ Application instructions ” above. The pivot speed must be at 100 %. Apply as soon as the count of African bollworm eggs increase to a level of 6 eggs per 24 plants or at a larvae count of 2 larvae per 24 plants. Refer to Warning Against Resistance under “ WARNINGS ” above.
Potatoes Potato tuber moth (larvae) & African bollworm	120 ml/ha	<u>Ground application:</u> Apply 250 to 500 litres water per hectare depending on plant size. Commence spraying when plants are one month old, or earlier if an infestation should occur. Repeat every 10 to 14 days and ridge at least twice during the growing season. Add pirimicarb at the registered rate for the control of aphids.
	132 ml/ha	<u>Aerial application:</u> Apply at least 30 litres water per hectare. Commence spraying as soon as plants are one month old, or earlier if an infestation should occur. Repeat application every 10 to 14 days and ridge at least twice during the growing season. Refer to warning against resistance under “ WARNINGS ” above.
Plums, Nectarines, Table and Canning Peaches, Apricots Banded fruit weevil (<i>Phylyctinus callosus</i>)	20 ml/100 ℓ water (500 to 700 ml/ha)	<u>Foliar application:</u> Apply at the first signs of feeding damage and repeat 3 to 4 weeks later if necessary. A single spray or a programme of sprays for weevil at this dosage will also suppress or even control low populations of red spider mite (red and two spotted strains).
	20 ml/100 ℓ water (20 ml/ha)	<u>Stem treatment:</u> Refer to the recommendations for stem treatment under “ Remarks ” for wine and table grapes below.

Crop / Pest	Dosage rate	Remarks
Tomatoes African bollworm & Semi-looper	7,5 ml/100 ℓ water	Commence spraying when plants start flowering or at first signs of an infestation. Apply as a full cover spray in 500 to 1000 litres water per hectare depending on plant size for tomatoes up to 1 metre in height. For longer plants a higher spray volume should be used, maintaining the same concentration. Repeat application at 7 to 10 day intervals or as dictated by inspection of crop. Refer to Warning Against Resistance under “WARNINGS” above.
Wheat and Sorghum African bollworm	100 ml/ha	Apply as soon as an infestation is noticed and repeat if necessary. <u>Ground application:</u> Apply in 250 to 500 litres water per hectare and ensure thorough wetting of the crop. <u>Aerial application:</u> Apply at least 30 litres water per hectare. Refer to Warning Against Resistance under “WARNINGS” above.
Wine and Table Grapes Weevils (<i>Eremnus setulosus</i> , <i>Eremnus cerealis</i> & <i>Phlyctinus callosus</i>)	20 ml/100 ℓ water (200 ml/ha)	<u>Stem treatment:</u> Monitor for weevils from beginning October and continue throughout the growing season. Apply as a preventive stem treatment as soon as weevil activity is observed on the stem. Apply in 1000 litres spray mixture per hectare (at least ± 0,5 litre per plant) up to a height of 1 metre. In the case of low growing vines (trees), spray up to the first lateral branches. Wet the stem thoroughly and allow excess spray mixture to run onto the soil surrounding the stem. Repeat application 3 to 4 weeks later if necessary. If a dense canopy has already formed and can serve as a hiding place for weevils, this will prevent them from migrating back to the stem during the day, apply the foliar application treatment below, but firstly ensure that an infestation is present in the foliage prior to application.
	20 ml/100 ℓ water (200 ml/ha)	<u>Foliar application:</u> Apply as a high volume preventive spray at 1 000 litres spray mixture per hectare. The first spray must be applied as soon as damaged is observed and, if further damage still occurs, a second spray must be applied 3 to 4 weeks later. The first occurrence of weevils varies from area to area but can normally be expected from mid-October to mid-November.

COTTON – IMPORTANT NOTES:

1. Use of synthetic pyrethroids in cotton:

- Synthetic pyrethroids must ONLY be applied to cotton during the period, 1 January to 1 March for the control of African bollworm. Refer to warning against resistance under **“WARNINGS”** above. No sprays should be necessary for African bollworm control during the first eight weeks after plant emergence. Should red bollworm be present a chemical

which does not promote red spider mite populations should be sprayed. Thereafter (10 to 12 weeks later) recommendations as listed above can be followed.

- **LAMBDA EC** applications are based on regular weekly scouting and the correct interpretation of the results. When more than five African and/or two red spiny bollworm larvae are found on 24 plants per 15 hectare during scouting, a spray has to be applied. The success of the treatment depends on coverage and penetration achieved by the spray application. Larvae already inside the bolls may not be controlled effectively. Allow 4 days for the spray to achieve maximum effect, scout and repeat application if necessary.

2. Tramline application:

Dosage recommendation is per single row. (therefore 1 tramline = two rows). Mount at least 5 suitable hollow cone nozzles over 'tramlines' so that one nozzle sprays directly over the top of each row, one in between and another on the outside of each of the two rows. For best coverage the two outside nozzles should be mounted on drop-arms pointing 45° upwards. A row spacing of 1metre equals 10 000 running metres per hectare.