

# THIONEX SC

Reg No. L 4671 Act / Wet no. 36 / 1947  
N – AR 0503

A suspension concentrate contact and stomach insecticide for the control of pests in crops as indicated.

'n Suspensiekonsentraat kontak- en maaginsekdoder vir die beheer van plae in gewasse soos aangedui.

GROUP F INSECTICIDE

GROEP F INSEKDODER

## ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL

endosulfan ( cyclodine organochlorine compound)

475 g / ℓ

endosulfan ( siklodien organochloor-verbinding)

## NET VOLUME / NETTO VOLUME

.....ℓ

## REGISTRATION HOLDER / REGISTRASIEHOUER:

MAKHTESHIM-AGAN SA (PTY) LTD

Reg No. 92/01741/07

21 Viben Street

Brackenfell

7560

Tel. (021) 982-1460

Batch number .....

.....

Lotnommer

Date of manufacture .....

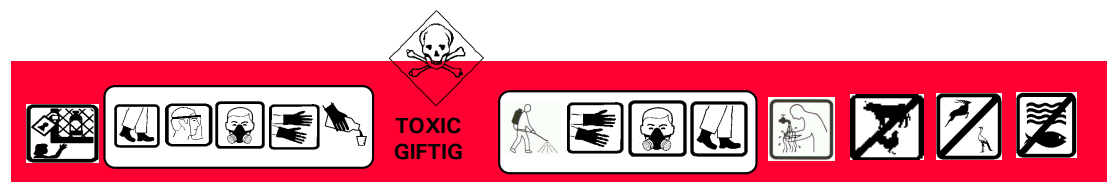
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Datum van vervaardiging

UN Nr: 2996

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THIONEX is die geregistreerde handelsmerk van Makhteshim-Agan SA (Pty) Ltd.



CLASS 1 B

Red colour band

**WARNINGS:**

- **Withholding periods:** (Minimum number of days between last application and harvest or use as food or feed:

Apples, Pears and Apricots.....	14 days.
Beans.....	2 days.
Cherries.....	14 days.
Citrus.....	10 days.
Coffee.....	14 days.
Cotton.....	35 days.
Grain sorghum.....	21 days.
Grapes (Table).....	Not later than pea berry size.
Grapes (wine).....	14 days.
Hops.....	14 days.
Macadamias.....	10 days.
Maize cobs.....	3 days.
Maize plants.....	28 days.
Paprika.....	3 days.
Peaches.....	14 days.
Peas.....	3 days.
Plums.....	14 days.
Sweetcorn.....	21 days.
Tomatoes.....	1 day.
Tobacco.....	5 days.
Wheat.....	28 days.

- Handle with extreme care.
- Poisonous when swallowed, inhaled or absorbed through the skin.
- Toxic to fish, bees and wildlife.
- Very toxic to ruminants.
- Store under lock and key, away from food and feed.
- Keep out of reach of children, uninformed persons and animals.
- Use of this compound in a manner or at a time other than in accordance with directions may cause plant injury, excessive residues or other undesirable results.
- **In case of poisoning call a doctor and make this label available to him.**

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

**Special warning in citrus:**

When spraying citrus, do not use in Tangelos. Do not use light summer narrow distillation range mineral oils in a programme that contains endosulfan formulations on Easy Peelers.

Do not apply sprays containing light summer narrow distillation range oil within 6 weeks before or 3 weeks after a spring endosulfan application. Drought stress can induce fruitlet and leafdrop in endosulfan treated trees especially if insecticidal doses of “oils” have been

used earlier in the spray programme. Endosulfan formulations are not compatible with light summer oils at concentrations in excess of 0,2 % nor with calcium arsenate.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not guarantee that it will be effective under all conditions. The activity and effect thereof may be affected by factors such as abnormal climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the pest against the remedy, 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 by 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:

- Do not eat, drink or smoke while handling this product.
- Prevent contamination of food, feed, drinking water and eating utensils.
- All persons in direct contact with the insecticide, including markers, should wear full protective clothing. (Overall, rubber boots, gloves and a suitable respirator) when handling the concentrate. If you get it in your eyes, flush it out at once. **See first aid.** If you get it on your skin, wash it off at once. **See first aid.** If you spill it on your clothes, change and wash them.
- Pilot should wear suitable clothing and respirator and should on no account handle the remedy.
- 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.
- While spraying, wear full protective clothing.  
Do not inhale the spray mist. Avoid contact with the spray as much as you can. Avoid spray drift onto other crops, grazing, rivers, dams and areas not under treatment.
- Wash equipment thoroughly after use and dispose of wash water where it will not contaminate crops, grazing, rivers or dams. Destroy empty container. Do not use for any other purpose. Change and wash your work clothes. Wash yourself.
- Keep children and animals away from stacked chemicals and spilt material. No worker should engage in mixing operations while he is suffering from any major complaints or from certain minor complaints such as bronchitis or stomach trouble.

### Symptoms of human poisoning:

1. **Human:** Headache, nausea, vertigo possibly coupled with diarrhoea, anaesthesia of the tongue, cerebral and cervical tremor and tremor of the extremities, tonic and clonic cramps, perhaps with unconsciousness.
2. **Bovine:** Listlessness, blind staggers, light restlessness, hyper-excitability, muscular spasm, goose-stepping and violent fits sometimes accompanied by pseudo grazing, salivation, groaning and teeth grinding.

**First aid treatment:**

1. **Human:** Remove patient from source of poisoning and keep him quiet and reassured. Remove contaminated clothing and rinse contaminated body area thoroughly with plenty of soap and cold water. Do not rub skin hard. Flush contamination out of eyes with clean water for 15 minutes.

If water diluted mixture has been swallowed, induce vomiting by tickling the back part of the throat. If concentrate has been swallowed, first give copious quantities of either beaten egg white, starch solution or Milk of Magnesia before inducing vomiting. Repeat until vomit fluid is clear and free from smell of poison.

Administer artificial respiration or closed chest cardiac massage if necessary. Do not apply direct mouth-to-mouth respiration. Never give anything by mouth to an unconscious person.

Get medical attention immediately and take this label along.

2. **Bovine:** Keep if possible in a darkened stable and keep animal quiet. If the chemical has been swallowed, administer activated charcoal and Glauber salts. If skin is contaminated wash and scrub thoroughly with soap or detergent.

**Note to physician:**

1. **Human:** Administer Phenobarbital (e.g Luminal) to control convulsions. Loss of water and salt should be corrected by the infusion of 1 N physiological saline solutions. The use of adrenaline and foods or purgatives containing fat or oil should be avoided. Pay prime attention to respiratory failure and cardio vascular collapse.
2. **Bovine:** Pentobarbitone sodium slowly administered, at dosages not larger than 1 gram for a 270 kg animal, should be used to control convulsions, proportionally smaller doses should be administered to smaller animals. Supportive therapy with Vitamin B Complex and Calcium borogluconate is required.

**DIRECTIONS FOR USE:** Use only as indicated.

**Compatibility:**

THIONEX 475 SC is compatible with most insecticides and fungicides. It is NOT compatible with mineral oils and calcium arsenate. It is advisable to do a compatibility test separately first before compounds are mixed in the spray tank.

**Mixing instructions:**

Half fill the spray tank with clean water. Shake the container vigorously before measuring out the required volume of THIONEX 475 SC. Premix the required volume with water and add to the spray tank while agitating. Fill the tank with water while agitation is maintained. If tank mixtures are made the following sequence of addition to the spray tank should be adhered to: adjuvants followed by suspension concentrates followed by emulsifiable concentrates. Maintain agitation during application. Do not let the spray mixture stand over in the spray tank for any length of time.

**Application:**

Avoid using **THIONEX SC** in maize, grain sorghum or any other crop that is drought stricken or wilted.

### Ground application:

**THIONEX SC** can be applied by any suitable medium or high volume spray apparatus provided it is able to distribute the spray mixture evenly over the target area and that it is fitted with an efficient agitation system.

### Aerial application:

Aerial application of **THIONEX 475 SC** may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SABS Code 0118 (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 cm<sup>2</sup> 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:
  - 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.

**Application rates:**

<b>CROP / PEST</b>	<b>DOSAGE RATE</b>	<b>REMARKS</b>
<b>Aloes</b> Flower moth	<b>High volume application:</b> 10 ml / 10 l water	Apply as a full cover spray directed at the flower buds at the first signs of an infestation.
<b>Apples and Pears</b> American bollworm Antestia slug	<b>High volume application:</b> 100 ml / 100 l water (2,5 – 3,5 l / ha)  <b>Low volume application:</b> 2,5 – 3,5 l / ha	Apply as a full cover spray at first signs of bollworm infestation at full bloom to 90 % petal drop. For export fruit the last application must not be later than 75 % petal drop. If possible spray early in the morning or late in the afternoon when bees are not active. More than one spray may be necessary. Apply 2500 – 3500 l spray mixture / ha. Apply as above in 12,5 % to 25 % of the volume of water used for high volume application
<b>Beans and Peas</b> American bollworm	<b>Ground application:</b> 750 ml – 1,5 l / ha  <b>Aerial application:</b> 1,5 l / ha	Ensure thorough coverage of plants. From the time of flowering, scout fields every 7 days using a sample of 24 plants for every 15 ha. Start application when a mean of 1 - 2 larvae not bigger than 10 mm, is reached on 10 % of the plants. Re-scout at 7 day intervals or after rain. Use the lower dosage rate on small plants and the higher dosage on bigger plants. Apply in at least 30 l water / ha.
<b>Cherries</b> American bollworm and Slug	<b>High volume application:</b> 100 ml / 100 l water (2,5 – 3,5 l / ha)	Apply as a full cover spray at full bloom to 90 % petal drop at first signs of infestation. Apply 2500 – 3500 l spray mixture / ha. Slug control permitted only after harvest. Repeat if necessary.
<b>Citrus</b> American bollworm (Orchards under integrated biocontrol)	<b>High volume application:</b> 100 ml / 100 l water  <b>Low volume application:</b> (4 x) 400 ml / 100 l water	Apply at blossoming as soon as populations of small larvae develop (usually 75 % petal drop). Apply as a medium cover spray at 2800 kPa. Normally one application will be sufficient.  Apply with mist blower delivering 5 - 10 l spray mixture / tree depending on tree size. <b>(See citrus orchard spraying).</b>  <b>NOTE: THIONEX SC</b> applied for American bollworm control, will control citrus Thrips for up to 10 days. When applying <b>THIONEX SC</b> in uneven flowering orchards prior to the main Thrip application, a light cover spray can be

CROP / PEST	DOSAGE RATE	REMARKS
Aphids		applied if American bollworm is not present.
	<b>High volume application:</b> 75 ml / 100 ℓ water	Apply when trees are flushing and heavy Aphid populations start to develop. Light cover spray by means of a high volume sprayer at 2800 kPa.
Psylla	<b>High volume application:</b> 75 ml / 100 ℓ water	Apply as a light cover spray when heavy populations start to develop or whenever deposits of orange coloured eggs are noticed on young flushes (edges of leaves). Repeat application within 16 days if re-infestation occurs. Addition of a wetter is advisable. If a medium range oil is used at 100 % petal drop, it's concentration should not exceed 200 ml / 100 ℓ water.
Aphids and Psylla	<b>Low volume application:</b> (4x) 300 ml / 100 ℓ water	Apply as a medium cover spray using a mist blower delivering 5 - 10 ℓ spray mixture / tree depending on tree size. ( <b>See citrus orchard spraying</b> ).
Orange dog	<b>High volume application:</b> 100 ml / 100 ℓ water	Apply as a medium cover spray as soon as infestation is noticed.
Bud mite	<b>High volume application:</b> 100 – 125 ml / 100 ℓ water  <b>Low volume application:</b> 400 – 500 ml / 100 ℓ water.	Apply during the period February – March as a medium cover spray. Ensure good coverage of one and two year old wood. Trees up to two years old which have been subjected to severe Bud mite attack may need a second spray just after petal drop. Use lower dosage rate for low Bud mite pressure and higher dosage rate for high pressure.
<b>Coffee</b> Antestia bug, Slug caterpillar	<b>High volume application:</b> 100 ml / 100 ℓ water	Apply as a full cover spray prior to main blossoming when pest is noticed. Repeat 14 days later if necessary.

CROP / PEST	DOSAGE RATE	REMARKS
<p><b>Cotton</b> American bollworm</p> <p>Semi-looper (Plusia)</p> <p>Thrips</p>	<p><b>Ground application:</b> 500 ml / 100 ℓ water (max 1,0 ℓ / ha) or 350 ml + 10 ℓ molasses / 100 ℓ water (max. 700 ml + 20 ℓ molasses / ha)</p> <p><b>Aerial application:</b> 1,0 ℓ / ha in 30 ℓ water or 700 ml + 6 ℓ molasses / ha in 30 ℓ water</p> <p><b>Corrective treatment:</b> Aerial and Ground application: 1,5 ℓ / ha</p> <p><b>Ground application:</b> 875 ml / 100 ℓ water (max. 1,75 ℓ / ha)</p> <p><b>Ground application:</b> 88 ml / 100 ℓ water / ha</p>	<p>Cotton should be treated with sufficient spray mixture for good coverage. In case of knapsack tailbooms or mist blowers, apply 50 ℓ spray mixture / ha up to 8 weeks after emergence. After 8 weeks and up till 60 cm height, apply 100 ℓ spray mixture and after cotton has reached 60 cm apply 200 ℓ / ha. Should 5 mm or more rain fall within 12 hours of application, re-scout as described under “note” to determine whether insects have survived and if re-spray is necessary. Do not apply overhead irrigation for at least 12 hours. Aphids are suppressed by the normal bollworm spray programme. <b>See notes on cotton.</b></p> <p>Apply as above. Will control larvae up to 15 mm. Up to 60 cm plant height, use half the recommended dosage rate, thereafter use the full dosage. <b>See “aerial application” regarding precautions and application. See corrective thresholds.</b></p> <p>Before 12 weeks after emergence, apply only when damage to leaf surface exceeds 50 %. Ensure good coverage increasing up to 200 ℓ spray mixture / ha for cotton 60 cm and more in height. <b>See notes on cotton.</b></p> <p>Apply to young seedlings at first indications of a medium to heavy infestation. Ensure that the plants are thoroughly wetted and repeat application when necessary. Use a boom and nozzle sprayer directing each cone onto a row.</p>
<p>Leafhoppers (Jassids)</p>	<p><b>Ground application:</b> 500 ml / 100 ℓ water</p>	<p>Apply sufficient spray mixture for good coverage. Apply at 100 ℓ spray mixture / ha for plants smaller than 60 cm and 200 ℓ / ha for plants taller than 60 cm. <b>See notes on cotton.</b></p>
<p><b>Grain sorghum</b> American bollworm</p>	<p><b>Ground application:</b> 15 ml in 3 ℓ water / 100 m row</p> <p><b>Aerial application:</b> 1,5 ℓ / ha</p>	<p>Apply as a full cover application in a 50 cm band over the row directed at the panicles as soon as the pest is noticed. Ensure good coverage of the panicles.</p> <p>Apply in at least 30 ℓ water per ha, preferably before the panicles close up.</p>

CROP / PEST	DOSAGE RATE	REMARKS
<p><b>Grapes</b> American bollworm Leafhopper</p> <p>Erinose mite (Bud mite)</p>	<p><b>High volume application:</b> 100 ml / 100 l water (0,5 - 1,5 l / ha)</p> <p><b>High volume application:</b> 125 ml / 100 l water (625 ml – 1,875 l / ha)</p>	<p>Apply as a medium cover application using 500 – 1500 l spray mixture / ha when first signs of an American bollworm infestation is noticed or when early leaf damage is noticed in the case of leaf hoppers. Do not apply in table grapes after the berries have reached pea size to prevent unsightly surface residues.</p> <p>Apply as a full cover spray at 500 – 1500 l spray mixture / ha ensuring that buds and shoots are well covered. Commence application when the length of shoots are 10 – 14 cm <b>OR</b> 14 – 28 days after bud burst and repeat application twice at 14 day intervals. Do not apply in table grapes after pea berry size.</p>
<p><b>Hops</b> American bollworm</p>	<p><b>High volume application:</b> 100 ml / 100 l water</p>	<p>Apply as a full cover spray as soon as the first signs of an infestation is noticed. Ensure especially good coverage of the growing tips and cones. Repeat application if necessary.</p>
<p><b>Macadamias</b> Stinkbug</p>	<p><b>High volume application:</b> 120 ml / 100 l water</p>	<p>Apply as a medium cover spray wetting both the inside as well as the outside of the tree canopy. Commence application when the threshold level of stinkbugs (0,7 stinkbugs / tree on 10 trees) as determined by the tree shake method, has been reached. Monitor the population every 7 days and repeat application if necessary.</p>

CROP / PEST	DOSAGE RATE	REMARKS
<p><b>Maize and Grain sorghum</b> Maize stalk borer (<i>Busseola fusca</i>)</p>	<p><b>Low volume ground application:</b> 5 ml / 100 m row</p> <p><b>Aerial application:</b> 625 ml / ha in 30 ℓ water</p>	<p>Apply in 3 ℓ water / 100 m row. Application should commence one week after 2 % of plants less than 6 weeks old have eggs or immediately if 6 % show borer damage (when the youngest leaves of the plant show small transparent patches “windows”). In the case of plants 6 weeks and older, an application threshold of 5 % egg laying and 10 % damage is used. For the best control larvae should not exceed 10 mm in length. Large well established larvae are poorly controlled. Constant scouting should be done to observe a re-infestation. A second application 12 – 14 days after the first may be necessary. Ideally two or three nozzles should be used on the row to spray directly into the funnel of the plant and to cover all the new growth. A pressure of 300 kPa should not be exceeded. Dew during the night following application is essential for control of larvae in the dew line in the funnels. Contact your local representative for more comprehensive information.</p> <p><b>See “aerial application” regarding precautions and application.</b></p> <p><b>NOTE:</b> Where infestation is likely , weekly checks should be made right up to the time plants come into tassel commencing 21 days after emergence.</p>
<p><b>Ornamentals</b> American bollworm, Aphids, Lily borer</p>	<p><b>High volume application:</b> 100 ml / 100 ℓ water</p>	<p>Apply as soon as pest is noticed and repeat if necessary.</p>
<p><b>Paprika</b> American bollworm Thrips</p>	<p><b>Ground application:</b> 1,0 ℓ / ha</p> <p><b>Aerial application:</b> 1,1 ℓ / ha</p>	<p>For American bollworm use the same threshold as for cotton.</p> <p>In case of Thrips, application must commence as soon as pest is noticed. Ensure good coverage and repeat application if necessary.</p> <p>Apply in at least 30 ℓ water / ha.</p>
<p><b>Peaches, Plums and Apricots</b> American bollworm and Antestia bug</p>	<p><b>High volume application:</b> 100 ml / 100 ℓ water (2,5 – 3,5 ℓ / ha)</p> <p><b>Low volume application:</b> 2,5 – 3,5 ℓ / ha</p>	<p>Apply as a medium cover application on foliage and flower trusses for American bollworm. For Antestia apply as soon as pest is noticed at full bloom to 90 % petal drop. Use 2500 – 3500 ℓ spray mixture / ha. Repeat if necessary.</p> <p>Apply as above in 12,5 % - 25 % of the water volume used for high volume application.</p>

<b>CROP / PEST</b>	<b>DOSAGE RATE</b>	<b>REMARKS</b>
<b>Sweetcorn and Maize</b> American bollworm	<b>Aerial application:</b> 1,5 ℓ / ha	Scout fields at 7 day intervals at beard emergence. A total of 24 plants / 15 ha must be monitored. Apply as soon as a mean of 10 % of the beards on the cobs are infested with a mean of at least one larvae of not more than 10 mm in length. Repeat application when necessary.
Pink maize stalkborer (Southern Cape)	<b>Ground application:</b> 500 ml / ha	Apply as a preventive programme starting 14 days after plant emergence and repeat every 14 days. Ensure a good coverage of the plants. The last application should be directed towards the cob.
<b>Tobacco</b> American bollworm, Aphids and Thrips	<b>High volume application:</b> <b>Ground application:</b> 300 – 700 ml / ha	Apply as soon as pest is noticed or when it is expected to appear. Ensure good wetting of the plants and give special attention to the top leaves as well as the growing tips. Repeat at 7 – 10 day intervals. For the control of Aphids and Thrips it is important that good coverage of the plant, including the undersides of the leaves, are obtained.
American bollworm	<b>Aerial application:</b> 1,0 ℓ / ha	Apply in at least 30 ℓ water / ha. Repeat at 7 – 10 day intervals.
<b>Tomatoes</b> American bollworm	<b>High volume application:</b> 100 ml / 100 ℓ water	Apply as a full cover spray as soon as plants start flowering or when bollworms are expected. Repeat every 7 – 10 days or after heavy rain.
<b>Wheat</b> American bollworm	<b>Aerial application:</b> 1,5 ℓ / ha	Commence spraying when 5 % of the ears are infested and before the larvae have reached a length of 10 mm. Repeat application if necessary.

#### **NOTES ON COTTON:**

##### **Good leaf coverage is essential.**

All applications should be based on a weekly scouting programme. Re-scout if 12,5 mm or more rain falls within 12 hours of application and re-spray if necessary. Overhead irrigation should be withheld for at least 12 hours after application. Do not apply to wet leaves as it might cause run off. Used at the recommended application rates in cotton, **THIONEX SC** will not induce outbreaks of red spider mite. Plant growth, percentage crop set and insect pressure are normally at their greatest from 12 - 20 weeks after seedling emergence (peak flowering). Over this period spray applications must be based on a 7 day interval if programme sprays are used. Weekly scouting of 24 plants / 15 ha is recommended.

**SPRAY THRESHOLDS:****American Bollworm**

Apply when the number of eggs reaches or exceeds 12 / 24 plants or the number of larvae reached or exceeded 5 / 24 plants. An application is required when a cumulative egg count reaches or exceeds the above thresholds over an unsprayed period of up to 3 consecutive weeks. From week 17 - 20 the normal application of **THIONEX SC** can be delayed until the number of small larvae reaches 5 / 24 plants.

**Corrective application for American bollworm:**

From week 17 an application can be done where the number of 1<sup>st</sup> to 3<sup>rd</sup> instar larvae reaches the economic threshold of 5 / 24 plants on a weekly count. Where more than 8 larvae / 24 plants are counted and many larvae are in an advanced stage (3<sup>rd</sup> to 4<sup>th</sup> instar), this application sometimes results in the population not decreasing to below the threshold of 5. A second spray may then be necessary the following week. Thereafter the normal dosage rate based on egg scouting is recommended.

**Semi-looper (Plusia):**

Small to medium size larvae must be controlled when a threshold of 12 caterpillars / 24 plants is reached between 12 and 24 weeks after plant emergence. Prior to 12 weeks after emergence of plants control of semi-looper is only necessary if damage to leaf surface area exceeds 50 %.

**Leafhoppers (Jassids):**

Commence application when count exceeds an average of 2 Jassids / leaf (48 / 24 leaves).

**ADDITION OF MOLASSES:**

Molasses must be added to the reduced **THIONEX SC** application rates at 20 % by spray volume for aerial application and 10 % for ground application. The full dosage rate (1 ℓ / ha) should be used when American bollworm infestation is high, i.e. more than 24 eggs / 24 plants. Molasses addition can maintain efficient droplet recovery up to wet dry bulb temperature difference of 12 °C.

**CITRUS ORCHARD SPRAYING:**

Do not spray when wind speed exceeds 12 km / hour. Direct airblast sprayer for two-thirds output in the upper half of trees and shut sprayers off at end of rows to avoid overspraying.

When spraying citrus, do not use in Tangelos. Do not use light summer narrow distillation range mineral oils in a programme that contains endosulfan formulations on Easy Peelers.

Do not apply sprays containing light summer narrow distillation range oils within 6 weeks before or 3 weeks after a spring endosulfan application. Drought stress can induce fruitlet and leaf drop in endosulfan treated trees particularly if insecticidal doses of "oils" have been used earlier in the spray programme.

Endosulfan formulations are not compatible with light summer oils at concentrations in excess of 0,2 % or with calcium arsenate.



**WAARSKUWINGS:**

- **Onthoudingsperiodes:** Minimum aantal dae tussen laaste toediening en oes of beweiding:

Appels , Pere en Appelkose.....	14
dae.	
Bone.....	2
dae.	
Druive – Tafel.....	nie later as ertjiekorrel grootte
nie.	
Druive – Wyn.....	14 dae.
Erte.....	3 dae.
Graansorghum.....	21 dae.
Hops.....	14 dae.
Katoen.....	35 dae.
Kersies.....	14
dae.	
Koffie.....	14
dae.	
Koring.....	28
dae.	
Makadamias.....	10 dae.
Mieliekoppe.....	3
dae.	
Mielieplante.....	28
dae.	
Paprika.....	3 dae.
Perskes en pruime.....	14
dae.	
Sitrus.....	10 dae.
Suikermielies.....	21 dae.
Tamaties.....	1 dag.
Tabak.....	5 dae.

- Hanteer uiters versigtig.
  - Giftig deur inname, inaseming of wanneer deur die vel geabsorbeer word.
  - Giftig vir visse, bye en wild.
  - Uiters giftig vir herkouers.
  - Stoor agter slot en grendel weg van voedsel en voer.
  - Hou buite bereik van kinders, oningeligte persone en diere.
  - Die gebruik van hierdie middel, anders as wat voorgeskryf is, mag plante beskadig, oortollige residu's of ander ongewenste resultate tot gevolg hê.
  - **In geval van vergiftiging ontbied 'n geneesheer en toon hierdie etiket aan hom.**
- Lugtoediening:** Stel alle inwoners in die onmiddellike omgewing van die gebied wat gespuit sal word in kennis en reik die nodige waarskuwings uit. Moet nie oor water of aangrensende gebiede spuit of die spuitstof daarheen laat wegdryf nie.

**Spesiale waarskuwing in sitrus:**

Wanneer sitrus bespuit word, moet nie in Tangelos gebruik nie. Moenie ligte somersmaldistillasiebestekolies in 'n program wat endosulfan bevat op enige "Easy Peelers" gebruik nie.

Moet nie ligte somersmalbestekdistillasieolies toedien binne 6 weke voor of 3 weke na 'n lente endosulfan toediening nie. Droogtestremming mag vrug- en blaarval by endosulfan behandelde bome veroorsaak, veral indien insekbeherende dosisse van spuitolies vroeër in die spuitprogram gebruik is. Endosulfan formulerings is nie mengbaar met ligte somerolies bo 0,2 % konsentrasie of met kalsiumarsenaat nie.

Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie. Die werking en doeltreffendheid daarvan kan beïnvloed word deur faktore soos abnormale klimaats- en bergingstoestande, kwaliteit van die verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui word nie en die voorkoms van weerstand van die plaag teen die betrokke middel sowel as die tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei en die omgewing of nadelige effek op mens of dier of vir 'n gebrek aan prestasie van die betrokke middel as gevolg van versuim van die gebruiker om etiketaanwysings na te kom, of as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kon word nie. Raadpleeg die verskaffer in die geval van enige onsekerheid.

#### VOORSORGMAATREËLS:

- Moet nie eet, drink of rook terwyl die produk hanteer word nie.
- Voorkom besoedeling van voedsel, voer, drinkwater en eetgerei.
- Alle persone in direkte kontak met die middel, sowel as die merkers, moet vol beskermende klere dra (oorpak, handskoene, rubberstewels en 'n geskikte respirator) wanneer die konsentraat hanteer word. Indien dit in u oë kom, spoel onmiddellik uit. **Sien noodhulp.** Indien dit op u vel kom, was dadelik af. **Sien noodhulp.** Indien dit op u klere mors, trek uit en was dit.
- Die vlieënier moet ook geskikte klere sowel as 'n respirator dra en moet onder geen omstandighede die middel hanteer nie.
- Keer die leë houer om oor die spuit- of mengtenk en dreineer vir minstens 30 sekondes nadat die vloei tot 'n gedrup verminder het. Spoel die houer daarna driekeer uit met 'n volume water gelykstaande aan 'n minimum van 10 % van die inhoud van die houer. Gooi die spoelwater by die inhoud van die spuittenk voordat die houer vernietig word.
- Dra vol beskermende klere tydens toediening. Moet nie die spuitmis inasem nie. Vermy kontak met die spuitstof sover moontlik. Vermy spuitstofwegdrywing na ander gewasse, weiding, riviere, damme en gebiede wat nie onder behandeling is nie.
- Maak spuittoerusting deeglik skoon na gebruik en raak van waswater ontsaem waar dit nie gewasse, weiding, riviere of damme sal besoedel nie. Vernietig leë houer en moet dit nie weer vir enige ander doel gebruik nie. Trek werksklere uit en was dit. Was uself.
- Hou kinders en diere weg van opgehoorte en afvalmateriaal. Geen werker mag deelneem aan die hantering of vermeningsproses terwyl laasgenoemde aan enige groot kwaal ly of selfs sommige kleiner klagtes soos brongitis of maagaandoening het nie.

#### Simptome van menslike vergiftiging:

1. **Mens:** Hoofpyn, algemene ongesteldheid, duiseligheid, naarheid soms gepaard met diaree, gevoelloosheid van die tong, serebrale en servikale bewerasie, bewerasie van die ledemate, toniese en kloniese stuiptrekkings soms gepaardgaande met bewusteloosheid.
2. **Beeste:** Lusteloosheid, blindelingse waggel, effense rusteloosheid, oormatige opgewondenheid, spiersametrekkings, steekparadepas, hewige stuipe gepaard met skynweiding, speekselafskeiding, gekreun en gekners van die tande.

**Noodhulpbehandeling:**

1. **Mens:** Verwyder persoon van die bron van vergiftiging. Stel hom gerus en hou hom stil. Verwyder besoedelde klere en spoel die besoedelde liggaamsdele met baie seep en koue water af. Moenie die vel hard vryf nie. Besoedelde oë moet vir 15 minute met skoon water uitgespoel word. Indien die waterverdunde mengsel gedrink is, veroorsaak braking deur die agterste gedeelte van die keel te prikkel met u vinger. Indien die konsentraat gedrink is, gee eers groot hoeveelhede geklitste eierwit, styseloplossing of Melk van Magnesia voordat braking veroorsaak word. Herhaal totdat braaksel helder is en nie langer na gif ruik nie.  
Neem die pasiënt onmiddellik na die naaste geneesheer en neem hierdie etiket saam. Pas kunsmatige asemhaling of geslote hartmassering toe indien nodig. Moenie direkte mond-tot-mond-asemhaling toepas nie. Moet nooit iets per mond aan 'n bewustelose persoon toedien nie.
2. **Beeste:** Indien moontlik, moet diere in 'n donker stal en so stil moontlik gehou word. Indien middel ingesluk is, moet geaktiveerde houtskool en Glauber sout toegedien word. Indien die vel besmet is, moet dit met seep of 'n ander reinigingsmiddel deeglik gewas en geskrop word.

**Nota aan die geneesheer:**

1. **Mens:** Toediening van fenobarbital (bv. Luminal) is noodsaaklik om stuiptrekkings te beheer. Water- en soutverlies behoort deur 'n 1 N fisiologiese-soutoplossing aangevul te word. Vermyn die gebruik van adrenalien, voedsel of purgeermiddels wat vet of olie bevat. Let veral op asemhalingstaking en kardiovaskulêre ineenstorting.
2. **Beeste:** Na-Pentobarbitoon, stadig toegedien teen 'n dosis van nie meer as 1 gram per 270 kg bees moet gebruik word om stuiptrekkings te beheer. Die dosis moet proporsioneel vir kleiner diere verminder word. Vitamien B-kompleks en Boor-glukonaat as ondersteunende terapie word aanbeveel.

**GEBRUIKSAANWYSINGS:** Gebruik slegs soos aangedui.

**Verenigbaarheid:**

**THIONEX 475 SC** is verenigbaar met die meeste insekdoders en swamdoders. Dit is eger NIE verenigbaar met minerale olies bo 'n konsentrasie van 0,2 % en kalsiumarsenaat nie. Daar word eger aanbeveel dat 'n verenigbaarheidstoets eers apart gedoen word voordat enige tenkmengsels gemaak word.

**Menginstruksies:**

Maak die spuittenk halfvol met skoon water. Skud die **THIONEX 475 SC** houer deeglik net voor die verlangde hoeveelheid daarvan in 'n aparte houer by 'n klein hoeveelheid water gevoeg word. Voeg hierdie vooraf vermengde mengsel in die spuittenk terwyl geroer word. Vul die spuittenk met water terwyl aanhoudend geroer word. Indien tenkmengsels gemaak word, word die middels in die volgende volgorde in die tenk gevoeg: bevorderingsmiddels gevolg deur suspensiekonsentrate gevolg deur emulgeerbare konsentrate. Verseker dat roering volgehou word tydens toediening. Moet nie die spuitmengsel laat oorsaak vir 'n onbepaalde tyd nie.

**Toediening:**

Vermy toediening van **THIONEX SC** in mielies en graansorghum of enige ander gewas wat aan droogtestremming of verwelking onderhewig is.

**Grondtoediening:**

**THIONEX SC** kan met enige geskikte medium- of hoëvolume spuitapparaat toegedien word mits dit in staat is om die spuitmengsel eweredig oor die teikengebied toe te dien en dit toegerus is met 'n doeltreffende roermeganisme.

**Lugtoediening:**

**THIONEX 475 SC** kan slegs deur 'n geregistreerde Lugbespuitingsoperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SABS Kode 0118 (Aerial Application of Agricultural Pesticides) uit die lug bespuit word. Verseker dat die spuitmengsel eweredig oor die teikenarea versprei word, en die verlies aan spuitmengsel tydens toediening tot 'n minimum beperk word. Dit is daarom belangrik om aan die volgende vereistes te voldoen:

- Volume: 'n Spuitmengsel volume van 30 liter per ha word aanbeveel. Hierdie produk is nie teen 'n verlaagde volume getoets nie. Die registrasiehouer kan nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige nadelige effekte indien hierdie produk teen 'n laer volume, as hierbo aanbeveel, toegedien word nie.
- Druppel bedekking: 30 tot 40 druppels per cm<sup>2</sup> moet op die teikenarea herwin word.
- Druppelgrootte: 'n Druppelspektrum met 'n VMD van 250 tot 280 mikrons word aanbeveel. Beperk die produksie van druppels kleiner as 150 mikrons (hoë drywing en verdampingspotensiaal) tot 'n minimum.
- Vlieg hoogte: Handhaaf die hoogte van die spuitbalk bo die teiken op 3 tot 4 meter. Moet nie spuit wanneer die vliegtuig duik nie, uitklim of draai nie.
- Gebruik geskikte atomiseringsapparaat wat die vereiste druppelgrootte en bedekking sal produseer, maar die minste verlies van produk verseker. Die spuitstelsel moet 'n druppelspektrum met die kleinste moontlike Relatiewe Span produseer.
- Plaas al die atomiseerders in die binnste 60 tot 75 % van die vlerkspan om te verhoed dat druppels binne-in die vlerkpuntvorteks beweeg.
- Die verskil in temperatuur tussen die nat- en droëboltermometer van 'n swaaihygrometer, moet nie 8°C oorskry nie.
- Stop bespuiting indien die windspoed 15 km/h oorskry.
- Stop bespuiting tydens turbulente, onstabiele en droë toestande gedurende die hitte van die dag.
- Bespuiting onder temperatuur inversie toestande (deur bo of binne die inversie laag te spuit) en/of hoë lugvog toestande (relatiewe humiditeit 80% en meer) mag tot volgende probleme aanleiding gee:
  - a) verlaagde effektiwiteit aangesien die druppels as 'n wolk in die lug bly hang en moontlik verdamp (onvoldoende bedekking op teiken).
  - b) skade aan nie-teiken gewasse of sensitiewe areas as gevolg van wegdrywing van die spuitwolk na nie-teiken area.
- Verseker dat die Lugbespuitingsoperateur presies weet watter lande bespuit moet word.
- Dit is noodsaaklik om 'n versekering van die Lugbespuitingsoperateur te verkry dat aan al die bogenoemde vereistes voldoen sal word en dat data van belang in 'n logboek saamgevat is vir toekomstige verwysing.

**Toedieningshoeveelhede:**

<b>GEWAS</b>	<b>DOSIS</b>	<b>OPMERKINGS</b>
<b>Aalwyne</b> Blommot	<b>Hoëvolume toediening:</b> 10 ml / 10 l water	Dien gerig na die blomknoppe toe as 'n volle dekbespuiting sodra die eerste tekens van die plaag opgemerk word.
<b>Appels en Pere</b> Amerikaanse bolwurm Antestia slak	<b>Hoëvolume toediening:</b> 100 ml / 100 l water (2,5 – 3,5 l / ha)  <b>Laevolume toediening:</b> 2,5 – 3,5 l / ha	Volle dekbespuiting met eerste tekens van bolwurmbesmetting by volblom tot 90 % blomblaarval. Vir uitvoervrugte moet die laaste bespuiting nie later as 75 % blomblaarval toegedien word nie. Indien moontlik, dien vroeg in die oggend of laatmiddag toe wanneer bye nie baie aktief is nie. Meer as een toediening mag nodig wees. Dien teen 2500 - 3500 l spuitmengsel / ha toe.  Dien toe in 12,5 % - 25 % van die volume water wat normaalweg vir hoëvolume bespuiting gebruik word.
<b>Bone en Erte</b> Amerikaanse bolwurm	<b>Grondtoediening:</b> 750 ml – 1,5 l / ha  <b>Lugtoediening:</b> 1,5 l / ha	Verseker deeglike bedekking van plante. Verken lande elke 7 dae vanaf blom en monitor 24 plante / 15 ha. Begin toediening sodra 'n gemiddeld van 1 - 2 larwes, nie langer as 10 mm nie, op 10 % van die plante voorkom. Verken weer na 7 dae of na reën. Gebruik die laer dosis op kleiner plante en die hoër dosis op groter plante.  Dien toe in ten minste 30 l water / ha.
<b>Druwe</b> Amerikaanse bolwurm en Bladspringer	<b>Hoëvolume toediening:</b> 100 ml / 100 l water (0,5 – 1,5 l / ha)	Dien toe as 'n medium deктоediening teen 500 – 1500 l spuitmengsel / ha sodra die eerste tekens van 'n Amerikaanse bolwurminfestasie opgemerk word of wanneer vroeë blaarskade opgemerk word in die geval van bladspringers. Moet nie in tafeldruwe toedien na die ertjekorrelstadium nie aangesien dit mag lei tot onooglike residu's op die oppervlak van die korrels.
Erinose myt	<b>Hoëvolume toediening:</b>	Dien toe as 'n volle deктоediening

GEWAS	DOSIS	OPMERKINGS
(Knopmyt)	125 ml / 100 l water (625 ml – 1,875 l / ha)	teen 500 – 1500 l spuitmengsel / ha. Sorg moet gedra word dat alle botsels en alle lote deeglik bedek word.  Begin toediening wanneer die lote 10 – 14 cm lank is <b>OF</b> 14 – 28 dae na bot met twee herhalings met 'n tussenpose van 14 dae. Moet nie in tafeldruiwe na ertjekorrelgrootte toedien nie.
<b>Graansorghum</b> Amerikaanse bolwurm	<b>Grondtoediening:</b> 15 ml in 3 l water / 100 m ry  <b>Lugtoediening:</b> 1,5 l / ha	Dien toe as 'n gerigte bespuiting in 'n 50 cm wye band oor die ry op die halms sodra die plaag opgemerk word. Verseker deeglike bedekking van die halms.  Dien toe in ten minste 30 l water / ha, verkieslik voor die halms toemaak.
<b>Hops</b> Amerikaanse bolwurm	<b>Hoëvolume toediening:</b> 100 ml / 100 l water	Dien toe as 'n volle deктоediening sodra die eerste tekens van 'n infestasië waargeneem word. Verseker deeglike bedekking van die groeipunte en keels. Herhaal toediening indien nodig.
<b>Katoen</b> Amerikaanse bolwurm	<b>Grondtoediening:</b> 500 ml / 100 l water (maks. 1,0 l / ha) of 350 ml + 10 l molasses / 100 l water (maks. 700 ml + 20 l molasses / ha)  <b>Lugtoediening:</b> 1,0 l / ha in 30 l water of 700 ml + 6 l molasses in 30 l water / ha.  <b>Korrektiewe behandeling:</b> Lug- en grondtoediening 1,5 l / ha	Katoen moet met genoeg spuitmengsel bespuit word om 'n deeglike benatting te verseker. In geval van rugsakstertstangapparaat of newelspuit, dien 50 l spuitmengsel / ha toe tot 8 weke na opkom. Na 8 weke en tot 60 cm hoogte bereik is, dien 100 l spuitmengsel en na katoen 60 cm bereik het, dien 200 l spuitmengsel / ha toe. Indien 5 mm of meer reën binne 12 uur na toediening val, verken land weer soos beskryf onder “nota” om te bepaal of insekte oorleef het en herhaal toediening indien nodig. Moet nie oorhoofs besproei vir 12 uur na toediening nie. Plantluis word oor die algemeen deur 'n normale bolwurm-spuitprogram onderdruk. <b>Sien nota oor katoen.</b>  Dien toe soos hierbo. Beheer larwes tot op 15 mm grootte. Tot op 'n planthoogte van 60 cm, dien die helfte van die dosis toe. By plante hoër as 60 cm word die volle dosis toegedien. <b>Sien “lugtoediening” vir</b>

GEWAS	DOSIS	OPMERKINGS
Valslandmeter (Plusia)  Blaaspootjies	<b>Grondtoediening:</b> 875 ml / 100 l water (maks. 1,75 l / ha)	<b>voorsorgmaatreëls en toediening.</b> <b>Sien korrektiewe drumpelwaardes.</b> Tot met 12 weke na ontkieming, dien slegs toe wanneer skade aan blare meer as 50 % is. Gebruik genoeg van die spuitmengsel om 'n deeglike benatting te verseker, met toename in spuitvolume tot 200 l / ha waar katoenplante 60 cm en hoër staan. <b>Sien notas oor katoen.</b>
	<b>Grondtoediening:</b> 88 ml / 100 l water / ha	Dien toe in jong saailinge sodra die eerste tekens van 'n middelmatige tot swaar infestasië opgemerk word. Verseker dat plante deeglik benat word. Herhaal toediening indien nodig. Gebruik 'n spuitbalk toegerus met holkeëlsputpunte wat direk op rye gerig is.
Bladspringers	<b>Grondtoediening:</b> 500 ml / 100 l water	Dien toe met genoeg spuitmengsel om 'n goeie bedekking te verseker. Dien toe teen 100 l spuitmengsel / ha vir plante kleiner as 60 cm en 200 l / ha vir plante groter as 60 cm. <b>Sien notas oor katoen.</b>
<b>Kersies</b> Amerikaanse bolwurm en Slak	<b>Hoëvolume toediening:</b> 100 ml / 100 l water (2,5 – 3,5 l / ha)	Dien toe as 'n volle dekhoediening vanaf volblom tot 90 % blomblaarval sodra die plaag opgemerk word. Dien 2500 – 3500 l spuitmengsel / ha toe. Die beheer van slak mag slegs na oes gedoen word. Herhaal toediening indien nodig.
<b>Koffie</b> Antestia stinkbesie en Brandruspe.	<b>Hoëvolume toediening:</b> 100 ml / 100 l water	Dien toe as 'n volle dekhoediening voor die hoof blomperiode sodra die eerste tekens van 'n infestasië opgemerk word. Herhaal 14 dae later indien nodig.
<b>Koring</b> Amerikaanse bolwurm	<b>Lugtoediening:</b> 1,5 l / ha	Dien toe in minstens 30 l water / ha. Toediening moet begin sodra 5 % van die blare besmet is en voor die larwes 10 mm groot is. Herhaal toediening indien nodig.
<b>Makadamias</b> Stinkbesie	<b>Hoëvolume toediening:</b> 120 ml / 100 l water	Dien toe as 'n medium dekhoediening en verseker dat die binnekant sowel as die buitekant van die boomkoepel benat word. Begin toediening sodra die drumpelwaarde (0,7 stinkbesies / boom in 10 bome) soos deur die booms kudmetode bepaal, bereik is.

GEWAS	DOSIS	OPMERKINGS
		Monitor die populasie elke 7 dae en herhaal toediening indien nodig.
<p><b>Mielies en Graansorghum</b> Mieliestronkboorder (<i>Busseola fusca</i>)</p>	<p><b>Laevolume</b> <b>Grondtoediening:</b> 5 ml / 100 m ry</p> <p><b>Lugtoediening:</b> 625 ml / ha in 30 l water</p>	<p>Dien toe in 3 l water / 100 m ry. Toediening moet begin een week nadat daar op 2 % van die plante (jonger as 6 weke) eiers gelê is of onmiddellik wanneer 6 % van die plante die eerste tekens van vreeskade toon, dit wil sê wanneer klein deursigtige kolle (“vensters”) op die jong blare waargeneem word. In geval van plante wat 6 weke en ouer is, word ‘n drumpelwaarde van 5 % eierdeponering en 10 % skade gebruik. Vir die beste beheer moet larwes nie groter as 10 mm in lengte wees nie. Groot gevestigde larwes word nie goed beheer nie. Hou die land onder observasie in geval daar ‘n herinfestasië voorkom. ‘n Tweede toediening 12 - 14 dae later mag nodig wees. Twee tot drie spuitpunte moet verkieslik op die ry gerig word sodat direk in die kelke gespuit en alle jong groei deeglik benat word. Moet nie ‘n druk van 300 kPa oorskry nie. Dou gedurende die nag na toediening is noodsaaklik vir die beheer van larwes in die doulyn in die kelke. Kontak u plaaslike verteenwoordiger vir meer omvattende inligting.</p> <p><b>Sien “lugtoediening” vir voorsorgmaatreëls en toediening</b> <b>Let wel:</b> Waar ‘n infestasië moontlik is, moet weekliks verken word totdat die plante pluimstoot. Begin verkenning 21 dae na opkom.</p>
<p><b>Paprika</b> Amerikaanse bolwurm en Blaaspootjie</p>	<p><b>Grondtoediening:</b> 1,0 l / ha</p> <p><b>Lugtoediening:</b> 1,1 l / ha</p>	<p>Vir die beheer van Amerikaanse bolwurm word die drumpelwaardes soos vir katoen gebruik. In die geval van blaaspootjies moet toediening begin sodra die plaag opgemerk word. Verseker goeie bedekking vir die beheer van beide plae en herhaal toediening indien nodig.</p> <p>Dien toe in 30 l water / ha.</p>
<p><b>Perskes, pruime en appelkose</b> Amerikaanse bolwurm,</p>	<p><b>Hoëvolume toediening:</b> 100 ml / 100 l water (2,5 – 3,5 l / ha)</p>	<p>Dien toe as ‘n medium dekttoediening op blare en blomtrosse vir die beheer van Amerikaanse bolwurm. Vir die</p>

GEWAS	DOSIS	OPMERKINGS
Antestia	<b>Laevolume toediening:</b> 2,5 – 3,5 ℓ / ha	beheer van Antestia, dien toe sodra die plaag opgemerk word in die periode van volblom tot 90 % blomblaarval. Dien 2500 – 3500 ℓ spuitmengsel / ha toe. Herhaal indien nodig. Dien toe soos hierbo in 12,5 % - 25 % van die watervolume wat vir hoëvolume toediening gebruik word.
<b>Sierplante</b> Amerikaanse bolwurm, Plantluise en Lelieruspe	<b>Hoëvolume toediening:</b> 100 ml / 100 ℓ water	Dien toe sodra die plaag opgemerk word. Herhaal toediening indien nodig.
<b>Sitrus</b> Amerikaanse bolwurm (Boorde onder geïntegreerde biologiese beheer)	<b>Hoëvolume toediening:</b> 100 ml / 100 ℓ water  <b>Laevolume toediening:</b> (4 x) 400 ml / 100 ℓ water	Dien toe met blomtyd sodra populasie van klein larwes ontwikkel (gewoonlik 75 % blomblaarval). Dien toe as 'n middelmatige dekbespuiting teen 2800 kPa. Normaalweg is een bespuiting voldoende. Dien toe met 'n newelspuit wat 5 - 10 ℓ spuitmengsel / boom lewer afhangede van boomgrootte. <b>Sien sitrusboordbespuiting.</b> <b>Let wel:</b> 'n <b>THIONEX SC</b> toediening vir Amerikaanse bolwurm, sal blaaspootjies vir 'n periode van tot 10 dae beheer. Waar <b>THIONEX SC</b> in boorde met 'n onegalige blompatroon voor die hoof blaaspootjiesbepuiting toegedien word, moet dit as 'n ligte dekbespuiting toegedien word indien Amerikaanse bolwurm nie teenwoordig is nie.
Plantluise	<b>Hoëvolume toediening:</b> 75 ml / 100 ℓ water	Dien toe as 'n ligte dekbespuiting teen 2800 kPa sodra bome begin uitspruit en swaar plantluispopulasies ontwikkel.
Silla (bladvlooie)	<b>Hoëvolume toediening:</b> 75 ml / 100 ℓ water	Begin toediening wanneer groot populasies begin ontwikkel of wanneer oranjekleurige eiers op die jong uitspruitsels opgemerk word (rande van blare). Herhaal toediening binne 16 dae indien 'n herinfestasië voorkom. Byvoeging van 'n benatter is raadsaam. As Cipron by 100 % blomblaarval gebruik word moet die konsentrasie van laasgenoemde nie 200 ml / 100 ℓ water oorskry nie. (ligte dekbespuiting).
Plantluise en Silla (bladvlooie)	<b>Laevolume toediening:</b> (4 x) 300 ml / 100 ℓ	Dien toe as 'n medium dekbespuiting met 'n newelspuit wat 5 - 10 ℓ

GEWAS	DOSIS	OPMERKINGS
Lemoenruspe  Knopmyt	water	spuitmengsel / boom lewer, afhangende van boomgrootte. ( <b>Sien sitrusboordbespuiting</b> ).
	<b>Hoëvolume toediening:</b> 100 ml / 100 l water	Dien toe as 'n middelmatige deктоediening sodra besmetting opgemerk word.
	<b>Hoëvolume toediening:</b> 100 – 125 ml / 100 l water  <b>Laevolume toediening:</b> 400 – 500 ml / 100 l water	Dien toe gedurende die periode Februarie – Maart as 'n medium deктоediening. Verseker dat een- en tweejarige hout deeglik bedek word. Bome tot en met twee jaar oud wat 'n erge knopmytinfestasiе het, mag 'n tweede bespuiting net na blomblaarval benodig. Gebruik die laer toedieningshoeveelheid vir 'n lae knopmytdruk en die hoë toedieningshoeveelheid vir die hoër druk.
Suikermielies en Mielies Amerikaanse bolwurm  Pienk mieliestronkboorder (Suid Kaap)	<b>Lugtoediening:</b> 1,5 l / ha  <b>Grondtoediening:</b> 500 ml / ha	Verken lande met 7 dae tussenposes sodra baard verskyn. Monitor 24 plante / 15 ha. Begin toediening sodra gemiddeld 10 % van die koppe se baard met gemiddeld een larf, wat nie langer as 10 mm is nie, besmet is. Herhaal toediening indien nodig. Dien toe as 'n voorkomende programbespuiting beginnende 14 dae nadat plante opgekom het. Herhaal toediening met 14 dae tussenposes. Verseker 'n deeglike bedekking van die plante. Die laaste toediening moet na die koppe gerig wees.
Tabak Amerikaanse bolwurm, Plantluise en Blaaspootjies  Amerikaanse bolwurm	<b>Hoëvolume grondtoediening:</b> 300 – 700 ml / ha  <b>Lugtoediening:</b> 1,0 l / ha	Dien toe sodra die plaag opgemerk word of wanneer dit verwag word. Verseker 'n goeie bedekking van die plant en skenk spesiale aandag aan die boonste blare en die groeipunte. Herhaal toediening elke 7 – 10 dae. Vir die beheer van plantluise en blaaspootjies is dit belangrik dat alle plantdele, insluitende die onderkante van blare, deeglik benat word.  Dien toe in ten minste 30 l water / ha. Herhaal elke 7 – 10 dae.
Tamaties Amerikaanse bolwurm	<b>Hoëvolume toediening:</b> 100 ml / 100 l water	Dien toe as 'n volle deктоediening sodra plante begin blom of wanneer 'n bolwurminfestasiе verwag word. Herhaal toediening elke 7 – 10 dae of na swaar reën.

**NOTA OOR KATOEN:****Goeie blaarbedekking is noodsaaklik.**

Alle bespuitings moet op 'n weeklikse verkenningprogram gebaseer word. Verken weer as 12,5 mm of meer reën binne 12 uur na toediening val en dien weer toe indien dit nodig is. Oorhoofse besproeiing moet vir minstens 12 uur na bespuiting gestaak word. Moet nie op nat blare spuit as die water daarvan afloop nie. Indien gebruik teen die aanbevole dosis in katoen, sal **THIONEX SC** nie 'n uitbraak van rooispinmyt tot gevolg hê nie. Plantegroei, persentasie vrugset en insekdruk is normaalweg op 'n hoogtepunt 12 - 20 weke na plantopkoms (piek blomtyd). Oor hierdie tydperk moet toedienings op sewe dae tussenposes gebaseer word en as programbespuiting gebruik word. Weeklikse verkenning van 24 plante / 15 ha word aanbeveel.

**SPUITDRUMPELWAARDES:****Amerikaanse bolwurm.**

Dien toe wanneer die eiertelling 12 / 24 plante bereik of oorskry, of die aantal larwes 5 / 24 plante bereik het. 'n Bespuiting is noodsaaklik wanneer 'n kumulatiewe eiertelling die bogenoemde drumpelwaarde oor 'n tydperk van drie agtereenvolgende weke bereik of oorskry het. Vanaf 17 - 20 weke na opkom, kan die normale toediening van **THIONEX SC** uitgestel word tot die aantal klein larwes 5 / 24 plante bereik het.

**Korrektiewe toediening vir Amerikaanse bolwurm:**

Vanaf week 17 kan 'n bespuiting toegedien word waar die aantal 1ste tot 3de instar larwes die ekonomiese drumpelwaarde van 5 / 24 plante op 'n weeklikse telling haal. Waar meer as 8 larwes / 24 plante getel is en heelwat laat instar larwes teenwoordig is (3de tot 4de instar), kan dit gebeur dat die bespuiting die populasie nie onderkant die drumpelwaarde van 5 laat daal nie. 'n Tweede toediening sal dan die daaropvolgende week nodig wees. Daarna word die normale dosis, gebaseer op eiertellings, aanbeveel.

**Valslandmeter (Plusia):**

Klein tot middelmatige larwes moet beheer word wanneer 'n drumpelwaarde van 12 larwes / 24 plante bereik is. Plante wat jonger as 12 weke is, moet slegs bespuit word as die vreeskade van die blaaroppervlakte meer as 50 % is.

**Bladspringers:**

Toediening moet begin wanneer die tellings 'n gemiddeld van 2 bladspringers / blaar (48 / 24 blare) oorskry.

**BYVOEGING VAN MOLASSE:**

Molasse moet by die verminderde **THIONEX SC** toedieningshoeveelhede gevoeg word teen 20 % van die spuitvolume in die geval van lugtoediening en 10 % in die geval van grondtoediening. Die volle dosis (1 ℓ / ha) moet gebruik word wanneer Amerikaanse bolwurm-infestasië hoog is, dit wil sê meer as 24 eiers / 24 plante. Molasse byvoeging sal doeltreffende druppelherwinning tot en by 'n nat- en droëboltemperatuurverskil van 12 °C handhaaf.

**SITRUSBOORDBESPUITING:**

Moet nie toedien wanneer die windsnelheid 12 km / uur oorskry nie. Kalibreer lugblaasspuitmasjien om twee derdes van spuitvolume op die boonste helfte van die bome te spuit. Skakel die lugblaasmasjien af aan die einde van elke ry om oorvleueling te vermy.

Wanneer sitrus bespuit word, moet nie in Tangelos gebruik nie. Moenie ligte somersmaldistillasiebestekolies in 'n program wat endosulfan bevat, op enige "Easy Peelers" gebruik nie.

Moet nie ligte somersmaldistillasiebestekolies toedien binne 6 weke voor of 3 weke na 'n lente endosulfan-toediening nie. Droogtestremming mag vrug- en blaarval by endosulfan-behandelde bome veroorsaak, veral indien insekbeherende dosisse van spuitolies vroeër in die spuitprogram gebruik is.

Endosulfan formulerings is nie mengbaar met ligte somerolies by konsentrasies hoër as 0,2 % of met kalsiumarsenaat nie.