

Fastac[®] SC

Reg. No. L4992; N-AR 0810

Act No. 36 of 1947

**READ ATTACHED PACKAGE OR LEAFLET BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

GROUP	3A	INSECTICIDE
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A suspension concentrate contact and stomach insecticide for the control of the pests mentioned on the crops listed.

'n Suspensiekonsentraat kontak- en maaginskodder vir die beheer van die plaë vermeld op die genoemde gewasse.

Hazard statements:

Causes mild skin irritation.

Harmful if swallowed.

Very toxic to aquatic life with long lasting effects

Precautionary statements:

Do not eat, drink or smoke when using this product.

Do not get in eyes, on skin, or on clothing.

Active ingredients / Aktiewe bestanddele:

Alpha-cypermethrin (pyrethroid) 100 g/l

Registered by:

BASF South Africa (Pty) Ltd
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Geregistreer deur:

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Batch No. & Date manufactured: Refer to details printed on container

Lotnommer & Datum vervaardig: Verwys na besonderhede gedruk op houer

EMERGENCY NUMBER / NOODNOMMER: +27 82 446 8946



® = Registered trademark of BASF / Geregistreerde handelsmerk van BASF

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WARNINGS

Hazard Statements

- Causes mild skin irritation.
- Harmful if swallowed.
- Very toxic to aquatic life with long lasting effects.

ALLOW THE FOLLOWING MINIMUM NUMBER OF DAYS, BETWEEN THE LAST APPLICATION AND HARVESTING OR GRAZING:

Apples and Pears	14	Peaches (canning)	3
Beans	7	Peas	7
Cotton	28	Potatoes	21
Cruciferae	4	Rooibos	90
Grazing	14	Sorghum	28
Groundnuts	7	Sugarcane	60
Lucerne	14	Tomatoes	4
Macadamia incl. other nuts	30	Wheat (grain)	25
Maize and Sweetcorn	14	Wheat (hay)	28
Peaches (fresh)	14	Wine and Table Grapes	28

- Treated sugarcane may be harvested within one day after burning.
- Not significantly hazardous to bees, various other beneficial pest parasites and predators and fish under field conditions, provided the product is used as directed. When applied in the presence of foraging bees, a temporary reduction in their activity may be noticed. Therefore, attempt not to apply during peak bee activity. Do not direct spray towards bee hives or allow spray drift in their vicinity.
- Store in a cool place away from food and feedstuffs.
- Keep out of reach of children, uninformed persons and animals.
- Re-entry: Do not enter treated field within two days after application, unless wearing protective clothing.

Aerial application:

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

Warning against resistance: See Use Restrictions below.

Although this remedy has been tested under a large variety of conditions the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal soil, climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label, and the occurrence of resistance of a 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 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

Precautionary Statements

- If medical advice is needed, have product container or label at hand.
- Keep out of reach of children.
- Read carefully and follow all instructions.
- Do not eat, drink or smoke when using this product.
- Wash contaminated body parts thoroughly after handling.
- Do not get in eyes, on skin, or on clothing.
- IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
- Rinse mouth.
- Collect spillage.
- If skin irritation occurs: Get medical attention.
- Dispose of contents and container to hazardous or special waste collection point.

- Wear a face shield and rubber gloves and boots when preparing the spray mixture.
- Wear a hat, nose and mouth protection, cotton overalls, rubber gloves, and shoes when applying the spray mixture.
- Wash contaminated clothing daily.
- Avoid eye splashes, skin contact by and inhalation of spray mist.
- Wash with soap and water after use or after accidental skin contact.
- Do not eat, drink or smoke while mixing or spraying unless having washed hands and face.
- Do not spray over or allow drift to contaminate water bodies such as dams, ponds, rivers, streams or fish hatcheries.
- 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 rinsings to the contents of the spray tank before destroying the container in the prescribed manner.
- Do not re-use the empty container for any other purpose, but destroy it by perforation and flattening and dispose of it in a safe way.
- Prevent contamination of food, feedstuffs, drinking water and eating utensils.

SYMPTOMS OF POISONING

Numbness and tingling of hands and feet, lung oedema and convulsions.

RELEVANT SUBSTANCES

Hazardous ingredients According to UN GHS criteria	CAS number	Concentration (W/W)
α -cypermethrin (ISO); racemate comprising (R)- α -cyano-3-phenoxybenzyl (1S,3S)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate; (S)- α -cyano-3-phenoxybenzyl(1R,3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate	67375-30-8	9,85 %
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	< 15 %
Poly(oxy-1,2-ethanediyloxy)-.alpha.-[2,4,6-tris(1,1-dimethylethyl)phenyl]-.omega.-hydroxy-	9046-09-7	< 5 %
Alcohols, C12- 15, ethoxylated, phosphates (>1 <2.5 mol EO)	68071-35-2	< 3 %
1,2-Benzisothiazol-3(2H)-one	2634-33-5	< 0,05 %
Bronopol	52-51-7	< 0,05 %
Propane-1,2-diol	57-55-6	< 10 %

FIRST AID TREATMENT

Remove contaminated clothing.

ON CONTACT WITH EYES:	Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
ON INGESTION:	Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.
ON SKIN CONTACT:	Wash thoroughly with soap and water.
IF INHALED:	Keep patient calm, remove to fresh air, seek medical attention.

Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

RESISTANCE WARNING

For resistance management, Fastac® SC is an IRAC Insecticide Group Code 3A insecticide. Any insect population may contain individuals, naturally resistant to Fastac® SC and other Group Code 3A insecticides. The resistant individuals can eventually dominate the insect population, if these insecticides are used repeatedly and exclusively in programmes.

These resistant insects may not be controlled by Fastac® SC, or any other Group Code 3A insecticides.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticides, from the same Insecticide Group Code. Alternate or tank-mix with products, from different Insecticide Group Codes.
- For tank mixing or alternation with products in other Insecticide Group Codes, refer to the applicable individual product labels.
- Integrate other control methods (chemical, cultural, biological), into disease control programmes.

FOR SPECIFIC INFORMATION ON RESISTANCE MANAGEMENT, CONTACT THE REGISTRATION HOLDER, BASF SA (Pty) Ltd.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED

Compatibility:

Do not add wetting or sticking agents, or oils to Fastac® SC, when spraying deciduous fruit. Never mix with seaweed extracts, amitraz, chinomethionat, dodine, prothiophos and vamidothion. Fastac® SC is physically and biologically compatible with Bravo® 500 SC (L5208), atrazine SC (L5271), molasses and most acaricides commonly used in cotton and with a surfactant such as Tronic500SC (L5208), atrazine SC (L5271), molasses and most acaricides commonly used in cotton and with a surfactant such as Tronic® in an in-tank mixture (see **Mixing instructions** below). When Fastac® SC is used in conjunction with any other agricultural remedy, full cognisance must be taken of all **WARNINGS, PRECAUTIONS and DIRECTIONS FOR USE** mentioned on that label.

Mixing instructions:

Half fill the spray tank with clean water. Shake the container of Fastac® SC well, immediately before use. Measure the required volume of Fastac® SC and pre-mix this with at least 10 l water. If any other product is to be mixed with Fastac® SC, the required volume of the product must be pre-mixed, in similar fashion. The efficacy of Fastac® SC can be harmed by very hard water (> 1000 ppm solutes), and a high pH value of the spray water, as Fastac® SC is more stable at a pH of around 4. Where a pH reducing agent is used to lower the pH of the water, the agent must be mixed with the total volume of water required for that particular tank mixture, before adding the Fastac® SC.

The addition of molasses has a pH reducing effect and it also reduces evaporation of the spray mist. For ground application add 10% molasses by volume and 20% for aerial application. Agitate the water in the spray tank and add the product(s) to the tank in the following sequence (as applicable): Acidifying agent 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 of the spray mixture before spraying commences. Maintain agitation while spraying. Prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

General directions:

Treated cane may be harvested within one day after burning.

Aerial application:

Aerial application of Fastac® SC 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 l 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 – 40 droplets per cm² must be recovered at the target area.
- **Droplet size:** A droplet spectrum with a VMD of 280 – 300 micron is recommended. Limit the production of fine droplets less than 150 micron (high drift and evaporation potential) to a minimum.
- **Flying height:** Maintain the height of the spray boom at 3 – 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 – 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:
 - Reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
 - 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.

The efficacy of the spray mixture may be adversely affected, when applied to dense row crops. Ensure that thorough ion and coverage is obtained when spraying and monitor efficacy within three days after application. A further application may be necessary, if acceptable levels of control have not been obtained.

Use Restrictions:

- 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 to cotton during the period 1st January to 1st March.

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

- When the soil surface is dry, cutworms tend to feed sub-surface and damage to seedlings is usually not visible until the plants start to wither. When planting in dry soil, or in the event of rapid desiccation of the soil surface after planting, poor control of cutworms can be expected since the pest does not come into contact with the product applied to the soil surface. Repeat application will not rectify the problem unless the soil surface is moist.

All spray applications must be made with suitable equipment, that is in good working order and correctly calibrated, to give the desired coverage for that particular method of application.

CROP	PEST	DOSAGE	DIRECTIONS FOR APPLICATION
AFFORESTATION: Eucalyptus, Pine Forestry, Proteas	Pine emperor moth (<i>Imbrasia cytherea</i>)	35 ml/ha	Aerial application: Apply in 30 l water/ha when most eggs have hatched.
Acacia, Oaks, Poplars, Wattle, Willows	Wattle bagworm (<i>Kotachalia junodi</i>) Willow emperor moth (<i>Gonimbrasia lyrrhea</i>)	70 ml/ha	Aerial application: Apply in 30 l water/ha when the bagworms are most active, usually in November / December.
ALL ROW CROPS	Cutworm (<i>Agrotis spp.</i>)	0,20 m/10 meter row 65 ml/ha 65 ml/ha 0,15 m/100 meter row 50 ml/ha 65 ml/ha	Can be applied as a preventive or corrective treatment (pre-emergent or post-emergent treatment). Apply to a well prepared seedbed free of clods and excessive trash (see below for directions in respect of reduced tillage practices). For satisfactory control the soil should be moist to the surface at the time of application. Repeat the application if re-infestation should occur. A. PREVENTIVE (pre-emergent treatment): Recommended on fields where cutworms usually occur or are expected. Ground application: Row treatment: Apply in at least 3 l water/100 meter row length. Apply in a band at least 300 mm wide over the row. Increase the dosage proportionately if the application is made in a wider band. Overall ground treatment: Apply in at least 300 l water/ha. Aerial application: Apply in 30 l water/ha according to the instructions under General directions above. B. CORRECTIVE (post-emergent treatment): Recommended when five percent (or more) seedlings show signs of attack. Ground application: Row treatment: Apply as for pre-emergent treatment. Overall ground treatment: As for pre-emergent treatment. Aerial application: Apply in 30 l water/ha according to the instructions under General directions above. NOTE: In production systems using reduced tillage practices (as used by some maize farmers) the cutworm population should be carefully monitored after the initial application as the probability of excessive cutworm populations is high which may call for a second treatment. In this case it is recommended to apply an overall treatment at the appropriate corrective dosage rate. See also Use Restrictions for a description of conditions during which poor control of cutworms can be expected.

CROP	PEST	DOSAGE	DIRECTIONS FOR APPLICATION
APPLES and PEARS	African bollworm (<i>Helicoverpa armigera</i>)	5 ml/100 ℓ water (0,0005% a.i.)	Apply as a corrective spray when necessary. Do not apply before 75% petal drop. Will also control codling moth and suppress weevil (snoutbeetle). Warning against African bollworm resistance: See Use Restrictions above. High volume application: Apply 125 – 175 ml Fastac® SC /ha. Apply two sprays: the first at 75% petal drop and the second 4 weeks later. A third spray can be applied in mid January to prevent late season damage. High volume application: Apply 250 – 350 ml Fastac® SC /ha. Initially this treatment will also control African bollworm and codling moth. Apply the first spray at 75% petal drop. Repeat every 14 days in orchards where high infestations warrant intensive control or where pheromone traps dictate applications. Repeat every 21 days in orchards where low infestations are experienced. Will also suppress weevil (snoutbeetle) and control American bollworm. High volume application: Apply 125 – 175 ml Fastac® SC /ha.
	Banded fruit weevil (snoutbeetle) (<i>Phylctinus callosus</i>)	10 ml/100 ℓ water (0,001% a.i.)	
	Codling moth (<i>Cydia pomonella</i>) Leafroller (<i>Tortrix capnenana</i>)	5 ml/100 ℓ water (0,0005% a.i.)	
BEANS	African bollworm (<i>Helicoverpa armigera</i>)	100 ml/ha 100 ml/ha	Commence application as soon as eggs or larvae appear on the plants. Repeat the application at 14 day intervals or as dictated by inspection of the crop. Warning against African bollworm resistance: See Use Restrictions above. Ground application: Apply in not less than 300 ℓ water/ha. Aerial application: Apply in 30 ℓ water/ha. Ensure thorough penetration and coverage. (Also see General directions under DIRECTIONS FOR USE). See ALL ROW CROPS above.
	Cutworm (<i>Agrotis</i> spp.)		
CITRUS	Ants (<i>Anoplolepis custodiens</i> ; <i>Pheidole</i> spp.)	250 ml/1,0 ℓ water (2,5% a.i.)	Only for use in conjunction with Sper Ant Barrier. Attach the Sper to the tree trunk as directed. When ants become active in the orchard (usually from August to September), the Fastac® SC spray mixture must be applied to the fibrous part of the Sper with a suitable applicator, e.g. an adapted knapsack sprayer. Apply to the point of run-off. Repeat the Fastac® SC treatment when necessary. Suitable for use in biologically controlled orchards.
COTTON			Fastac® SC is primarily intended for use as a preventive control measure against all bollworm larvae based on regular weekly scouting, or a regular spray programme applied at seven day intervals. In order to comply with the principles of pest management and integrated control measures, Fastac® SC is intended to be used during the period from 1st January to 1st March. Normally such a bollworm control programme will commence at the beginning of flowering, i.e. about 6 weeks after emergence. From now until peak flowering use another group code product for the control of <i>Helicoverpa</i> bollworm based on scouting results. Cotton older than 12 weeks after plant emergence is considered mature. Fastac® SC exhibits some repellent properties against bollworm moths resulting in fewer eggs being laid on Fastac® SC treated plants. Fastac® SC resists rain wash-off provided the spray mixture is given sufficient time to dry completely on the crop. Ensure thorough penetration and coverage. (Also see General directions under DIRECTIONS FOR USE).

CROP	PEST	DOSAGE	DIRECTIONS FOR APPLICATION
COTTON	All bollworms, i.e. African (<i>Helicoverpa</i>), red and spiny bollworm larvae; Stainers	50 ml/100 ℓ water (0,005% a.i.)	A. PREVENTIVE: Apply as determined by the results of scouting for eggs, i.e. for <i>Helicoverpa</i> bollworm: an average of 0,5 eggs per plant; red bollworm: 0,25 eggs per plant; spiny bollworm: when two or more larvae are found during scouting, after having scouted 24 plants at random in fields up to 15 ha in extent. Scouting must be done at weekly intervals from flowering until boll split. Stainers will be controlled by Fastac® SC during regular applications for control of bollworm larvae. Warning against African bollworm resistance: See Use Restrictions above. Ground application: With boom and hydraulic nozzles: Ensure thorough coverage of the plants. For plants smaller than 600 mm apply 100 ℓ spray mixture/ha. For taller plants increase the volume of spray mixture gradually to 200 ℓ/ha for mature cotton. Do not use less than 100 ml Fastac® SC /ha on mature cotton. Tramline® treatment: Apply 50 – 100 ℓ spray mixture/ha depending on plant size. Mount at least five suitable hollow-cone nozzles over the "tramlines" so that one nozzle sprays directly over the top of each row, one sprays between the two rows and the other two nozzles should be mounted pointing 45° upwards on drop arms on the outside of each of the two rows.
	All bollworms; leaf eaters, i.e. <i>Plusia</i> (semi-looper), <i>Spodoptera</i>	50 ml or 100 ml/ha 62,5 ml or 125 ml/ha	Mistblower: Use the lower dosage on cotton less than 600 mm high and the higher dosage rate on cotton taller than 600 mm. Do not use less than 100 ml Fastac® SC /ha on mature cotton. Aerial application: As for mistblower application by applying in 30 ℓ water/ha. B. CORRECTIVE EMERGENCY CONTROL MEASURE: In the event of an emergency situation arising, e.g. as a result of weather conditions preventing applications, Fastac® SC can be applied as a true corrective treatment. This recommendation must be regarded as an emergency measure when an exceptionally high bollworm or leaf eater population in different instars has become established in the crop. Later instar red bollworm larvae established inside bolls may not be controlled successfully. Success of the treatment can be related to application, density of crop foliage, plant population, and instars of larvae. Allow up to 4 days for Fastac® SC to achieve its full effect. After such a corrective application the regular programme must be resumed irrespective of the crop stage. Warning against African bollworm resistance: See Use Restrictions above.
		150 ml/100 ℓ water (0,015% a.i.) 150 ml or 300 ml/ha 175 ml or 350 ml/ha	Ground application: With boom and hydraulic nozzles: Ensure thorough coverage of the plants. For plants smaller than 600 mm apply 100 ℓ spray mixture/ha. For taller plants increase the volume of spray mixture gradually to 200 ℓ/ha for mature cotton. Do not use less than 300 ml Fastac® SC /ha on mature cotton. Mistblower: Use the lower dosage on cotton less than 600 mm high and the higher dosage rate on cotton taller than 600 mm. Do not use less than 300 ml Fastac® SC /ha on mature cotton. Aerial application: As for mistblower application by applying in 30 ℓ water/ha. See ALL ROW CROPS above.

CROP	PEST	DOSAGE	DIRECTIONS FOR APPLICATION
COTTON (only irrigated)	African bollworm larvae (<i>Helicoverpa</i>)	100 ml/ha 125 ml/ha	LARVAL INSPECTION TECHNIQUE: Inspect 24 plants at random in fields up to 15 ha in extent at weekly intervals from the onset of flowering until boll split for the presence of young African (<i>Helicoverpa</i>) bollworm larvae. Pay special attention to their presence in terminal buds and developing fruit (squares). Apply Fastac® SC immediately at the recommended rate as soon as the threshold value of five larvae per 24 plants is reached or exceeded, irrespective of the crop growth stage. Warning against African bollworm resistance: See Use Restrictions above. Ensure thorough penetration and coverage. (Also see General directions under DIRECTIONS FOR USE). Ground application: Apply by means of ground application equipment as described above under COTTON: A PREVENTIVE . Aerial application: Apply in 30 ℓ water/ha. Also see General directions under DIRECTIONS FOR USE .
CRUCIFERAE	African bollworm (<i>Helicoverpa armigera</i>); Diamond back moth larvae (<i>Plutella maculipennis</i>); Thrips Cutworm (<i>Agrotis</i> spp.)	7 ml/100 ℓ water (0,0007% a.i.)	Ensure thorough wetting of the plant. Commence spraying as soon as the first signs of the pest occur and repeat sprays every 10 – 14 days. This treatment will suppress aphids in a programme spray. Ensure thorough penetration and coverage. (Also see General directions under DIRECTIONS FOR USE). Warning against African bollworm resistance: See Use Restrictions above. See ALL ROW CROPS above.
GRAPE VINES	Banded fruit weevils (snoutbeetles) (<i>Phlyctinus callosus</i> , <i>Eremnus setulosus</i>) Argentine ants (<i>Linepithema humile</i>) Pugnacious ants (<i>Anoplolepis custodiens</i> and <i>A. steingroeveri</i>)	10 ml/100 ℓ water (0,001% a.i.) 100 ml/10 ℓ water 200 ml/10 ℓ water	Apply as a full cover application ensuring thorough coverage of all parts of the plant. Apply the first spray when the first signs of movement or feeding of weevils (snoutbeetles) occur. Repeat after 21 – 28 days if necessary. The first occurrence of weevils (snoutbeetles) varies from area to area but can be expected from mid October to mid November. For use in trellised vineyards only. Apply at the beginning of the season as soon as ants start foraging in the vineyard canopy. Apply to point of run-off as a coarse spray directly to the bottom 30 cm of vine stems, using a ring-spray attachment fitted to the lance of a knapsack sprayer. One application should normally be sufficient for the entire season, but where severe ant infestations occur, it may be necessary to repeat the application. The trellis poles and all other structures that ants may climb to reach the vines, must also be treated. Weed control is also important. Monitor vineyards regularly for the presence of ants.
GRAZING	Army worm (<i>Spodoptera exempta</i>)	100 ml/ha 100 ml/ha	Apply as soon as pest occurs. Ground application: Apply in at least 300 ℓ water/ha to ensure good coverage. Aerial application: Apply in 30 ℓ water/ha.
GROUNDNUTS	African bollworm (<i>Helicoverpa armigera</i>) Cutworm (<i>Agrotis</i> spp.)	100 ml/ha 100 ml/ha	Commence application as soon as eggs or larvae occur on the plants. Repeat the application at 14 day intervals or as dictated by inspection of the crop. Warning against African bollworm resistance: See Use Restrictions above. Ground application: Apply in not less than 300 ℓ water/ha. Aerial application: Apply in 30 ℓ water/ha. Ensure thorough penetration and coverage. (Also see General directions under DIRECTIONS FOR USE). See ALL ROW CROPS above.

CROP	PEST	DOSAGE	DIRECTIONS FOR APPLICATION
LUCERNE	Lucerne caterpillar (<i>Colias electa</i>)	50 ml/ha	Apply as soon as pest occurs. Ground application: Apply in 300 ℓ water/ha. Ensure thorough penetration and coverage. (Also see General directions under DIRECTIONS FOR USE).
MACADAMIA, PECAN NUTS, WALNUTS, HAZELNUTS	Stink bug (<i>Nezara viridula</i>) Banded fruit weevil (snoutbeetle) (<i>Phlyctinus callosus</i>) African bollworm (<i>Helicoverpa armigera</i>)	10 ml/100 ℓ water 10 ml/100 ℓ water (0,001% a.i.) 5 ml/100 ℓ water (0,0005% a.i.)	Apply as a high volume full cover spray when the nuts are marble size (October / November) and repeat four weeks later. A third application may be necessary four weeks after the second application. Apply at the first signs of feeding damage. Repeat the application 3 – 4 weeks later if necessary. High volume application: 250 – 350 ml Fastac® SC /ha. Apply as a full cover corrective spray when necessary. Do not apply before 75% petal drop. Warning against African bollworm resistance: See Use Restrictions above. High volume application: 125 – 175 ml Fastac® SC /ha.
MAIZE	African bollworm (<i>Helicoverpa armigera</i>) Cutworm (<i>Agrotis</i> spp.) Stalkborer (<i>Busseola fusca</i>)	1,0 ml/100 meter row 100 ml/ha 1,25 ml/100 meter row 125 ml/ha	Apply when pest occurs but not later than 80% beard emergence. Warning against African bollworm resistance: See Use Restrictions above. Ground application: If row width permits ground application use not less than 3 ℓ water/100 meter row length. Direct nozzles towards the heads. Aerial application: Apply in 30 ℓ water/ha according to the directions above. Ensure thorough penetration and coverage. (Also see General directions under DIRECTIONS FOR USE). See ALL ROW CROPS above. Apply as a preventive treatment against young larvae based on scouting for eggs on plants. Apply 7 – 10 days, after 5% or more plants are found to be infested with eggs. Do weekly scouting from 2 – 7 weeks after crop emergence by inspecting at least 100 plants at random per field. If eggs have hatched, spray at the first signs of an infestation. Larvae longer than 10 mm or larvae that have already tunneled into the stalk will not be controlled effectively. To control the second generation stalkborer larvae it is advisable that the moth flights are monitored. Ground application: Direct spray into the funnel. Apply in sufficient water, i.e. 3 ℓ water/100 meter row length. This will result in the use of 125 ml and 62,5 ml Fastac® SC /ha on one and two metre row widths respectively. Aerial application: Apply in 30 ℓ water/ha according to the directions for ground application. Ensure thorough penetration and coverage. (Also see General directions under DIRECTIONS FOR USE).

CROP	PEST	DOSAGE	DIRECTIONS FOR APPLICATION
PEACHES	African bollworm (<i>Helicoverpa armigera</i>)	5 ml/100 ℓ water (0,0005% a.i.)	Apply as a full cover corrective spray when necessary. Do not apply before 75% petal drop. Will also control codling moth. Warning against African bollworm resistance: See Use Restrictions above . High volume application: 125 – 175 ml Fastac® SC /ha.
	Banded fruit weevil (snoutbeetle) (<i>Phyllocnistis callosus</i>)	10 ml/100 ℓ water (0,001% a.i.)	Apply at the first signs of feeding damage. Repeat the application 3 to 4 weeks later if necessary. High volume application: 250 – 350 ml Fastac® SC /ha.
	Codling moth (<i>Cydia pomonella</i>)	5 ml/100 ℓ water (0,0005% a.i.)	Apply the first full cover application at 75% petal drop. Repeat every 14 days in orchards where high infestations warrant intensive control or where pheromone traps dictate application. Repeat every 21 days in orchards where low infestations are experienced. Will also control African bollworm and suppress weevil (snoutbeetle). High volume application: 125 – 175 ml Fastac® SC /ha.
	False codling moth (<i>Cryptophlebia leucotreta</i>)	5 ml/100 ℓ water (0,0005% a.i.)	Early cultivars: Apply as a full cover application six weeks before the picking date and repeat application every 14 days. Late cultivars: Apply as a full cover application eight weeks before the picking date and repeat application every 14 days. In the summer rainfall regions the first application must be made not later than the third week of December. Canning peaches: As above, but applications can be made up to three days before picking. High volume application: 125 – 175 ml Fastac® SC /ha.
	Fruit flies (<i>Ceratitis capitata</i> ; <i>Pterandrus rosa</i>)	10 ml/100 ℓ water (0,001% a.i.)	All cultivars: Apply as a full cover application eight weeks before picking or as directed by pheromone traps, and repeat application every two weeks. In the summer rainfall regions the first application must be made not later than the third week of December. Peaches destined for canning can be sprayed up to three days before picking. This treatment will also control false codling moth larvae. High volume application: 250 – 350 ml Fastac® SC /ha.
PEAS	African bollworm (<i>Helicoverpa armigera</i>); Lesser army worm (<i>Spodoptera exiqua</i>)	100 ml/ha 100 ml/ha	Commence application as soon as eggs or larvae occur on the plants. Repeat the application at 14 day intervals or as dictated by inspection of the crop. Warning against African bollworm resistance: See Use Restrictions above . Ground application: Apply in not less than 300 ℓ water/ha. Aerial application: Apply in 30 ℓ water/ha.
	Cutworm (<i>Agrotis</i> spp.)		Ensure thorough penetration and coverage. (Also see General directions under DIRECTIONS FOR USE). See ALL ROW CROPS above.
POTATOES	Potato tuber moth (<i>Phthorimaea operculella</i>); Lesser army worm (<i>Spodoptera exiqua</i>)	100 ml/ha	Apply preventively as a full cover spray from when the plants are one month old. Repeat at 8 – 14 day intervals. Ridge at least twice during the growing season to ensure that no tubers are exposed at any time. In cases where the crop is to be left in the ground for any period of time, ensure that there are no cracks in the soil covering the rows through which moths could gain direct access to the tubers. Ground application: Depending on plant size apply in 300 – 500 ℓ water/ha. Ensure thorough penetration and coverage. (See General directions under DIRECTIONS FOR USE above).
ROOIBOS	Lepidopterous larvae, (i.e. Looper and bollworm)	100 ml/ha	Apply preventively as a full cover spray three months before harvest or immediately after harvest. Warning against African bollworm resistance: See Use Restrictions above .

CROP	PEST	DOSAGE	DIRECTIONS FOR APPLICATION
SORGHUM	African bollworm (<i>Helicoverpa armigera</i>) Cutworm (<i>Agrotis</i> spp.)	1,0 ml/100 meter row 100 ml/ha	Apply when the pest occurs. If bollworm larvae are concealed in the ear, control may be less effective. Warning against African bollworm resistance: See Use Restrictions above . Ground application: Direct application onto ears. Apply in not less than 2 ℓ water/100 meter row. Aerial application: Apply in 30 ℓ water/ha. Ensure thorough penetration and coverage. (Also see General directions under DIRECTIONS FOR USE above). See ALL ROW CROPS above. Ground application: As for maize.
	Stalkborer (<i>Busseola fusca</i>)	1,25 ml/100 meter row 125 ml/ha	Aerial application: As for maize. Ensure thorough penetration and coverage. (Also see General directions under DIRECTIONS FOR USE above).
SWEETCORN	African bollworm (<i>Helicoverpa armigera</i>); Stalkborers (<i>Busseola fusca</i> ; <i>Sesamia calamistis</i>)	1,0 ml/100 meter row 100 ml/ha	Follow a spray programme by applying the first application three weeks after planting. Follow up with two further spray at 10 – 14 days intervals and a fourth and last application at about 10 weeks after planting, i.e. at beard emergence. This spray programme will also suppress maize streak virus transmission by leafhoppers. Warning against African bollworm resistance: See Use Restrictions above . Ground application: Apply in not less than 3 ℓ water/100 meter row length. Aerial application: Apply in 30 ℓ water/ha. Ensure thorough penetration and coverage. (Also see General directions under DIRECTIONS FOR USE). See ALL ROW CROPS above.
SUGARCANE	Cutworm (<i>Agrotis</i> spp.)	200 ml/ha	Ground application: Follow a preventive spray programme, by applying the first application, starting in August. Follow up at two week intervals up to a maximum of eight applications. Apply as a full cover spray with a mist blower in 350 ℓ water/ha. Aerial application: Apply in 30 ℓ water/ha.
TOMATOES	<i>Eldana saccharina</i>	200 ml/ha	Ground application: Apply as a full cover spray at the first signs of an infestation. Repeat the application at 7 – 10 day intervals or as directed by inspection of the crop. Warning against African bollworm resistance: See Use Restrictions above . High volume: Apply up to 500 ℓ spray mixture/ha to plants up to 600 mm high, and 1000 ℓ/ha or more to plants higher than 600 mm, e.g. trellised tomatoes. Do not use more than 100 ml Fastac® SC /ha. Mistblower: Apply in 150 – 500 ℓ water/ha. Use the lower rate and volume for plants up to 600 mm high, and the higher rate and volume for plants taller than 600 mm, e.g. trellised tomatoes. Do not use more than 100 ml Fastac® SC /ha.
	African bollworm (<i>Helicoverpa armigera</i>)	10 ml/100 ℓ water (0,001% a.i.) 50 or 100 ml/ha	Ensure thorough penetration and coverage. (Also see General directions under DIRECTIONS FOR USE). See ALL ROW CROPS above.
	Cutworm (<i>Agrotis</i> spp.)		Ensure thorough penetration and coverage. (Also see General directions under DIRECTIONS FOR USE). See ALL ROW CROPS above.

CROP	PEST	DOSAGE	DIRECTIONS FOR APPLICATION
WHEAT	African bollworm (<i>Helicoverpa armigera</i>)	100 ml/ha 100 ml/ha	Apply as soon as the economic threshold has been reached in sufficient water to ensure thorough penetration and coverage. Warning against African bollworm resistance: See Use Restrictions above. Ground application: Apply in not less than 200 l water/ha. Aerial application: Apply in not less than 30 l water/ha.

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AFRIKAANS

WAARSKUWINGS

Gevaarstellings:

- Verorsaak ligte velirritasie
- Skadelik indien ingesluk
- Baie giftig vir akwatiese organismes met langdurige effek

LAAT DIE VOLGENDE MINIMUM AANTAL DAE TOE, TUSSEN DIE LAASTE TOEDIENING EN OES OF BEWEIDING:

Aartappels	21	Lusern	14
Appels en Pere	14	Macadamia, insl. ander neute	30
Bone	7	Mielies en Suikermielies	14
Ertjies	7	Perskes (vars)	14
Graansorghum	28	Perskes (inmaak)	3
Grondbone	7	Rooibos	90
Katoen	28	Suikerriet	60
Koolgewasse	4	Tamaties	4
Koring (graan)	25	Weiding	14
Koring (hooi)	28	Wyn- en Tafeldruive	28

- Behandelde suikerriet mag binne een dag nadat dit gebrand is, ge-oes word.
- Giftig indien ingesluk en matig giftig deur velopname.
- Nie betekenisvol risiko vir bye, verskillende ander nuttige plaagparasiete en predatore en vis onder veldtoestande, met dien verstande dat die produk gebruik word soos voorgeskryf. Indien toegedien word terwyl bye werksaam is, mag 'n tydelike afname in hulle aktiwiteit opgemerk word. Daarom behoort toedienings nie gemaak te word wanneer bye op hulle bedrywigste is nie. Moenie spuitnewel op byekorwe rig of in hulle rigting laat oorwaai nie.
- Matig giftig vir wild.
- Bêre agter slot en grendel in 'n koel plek weg van voedsel en voer.
- Hou buite bereik van kinders, oningelgte persone en diere.
- Indien vergiftiging voorkom, ontbied 'n geneesheer en toon hierdie etiket aan hom.
- Herbetreding: Moenie behandelde gebied betree vir twee dae na bespuiting, tensy beskermende oorklere gedra word nie.
- In die geval van vergiftiging, raadpleeg 'n geneesheer en toon hierdie etiket aan hom.

Lugtoediening: Verwittig alle inwoners in die opgewing van die gebied wat bespuit gaan word, en reik die nodige waarskuwings uit. Moenie oor aangrensende gebiede of water spuit of spuitnewel daarheen laat oorwaai nie.

Waarskuwing teen bestandheid: Sien Gebruiksbeperkings hieronder.

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

VOORSORGMATREËLS

Voorsorgstellings:

- Indien mediese advies benodig word, hou die produkhouer of -etiket byderhand.
 - Hou buite bereik van kinders.
 - Lees etiket noukeurig en volg alle instruksies.
 - Moet nie eet, drink of rook wanneer hierdie produk gebruik word nie.
 - Was besoedelde liggaamsdele deeglik na gebruik.
 - Moet nie in oë, op vel, of op klere laat kom nie.
 - **INDIEN INGESLUK:** Skakel n GIFBEHEERSENTRUM of dokter/geneesheer indien u siek voel
 - Spoel mond uit
 - Maak storsel bymekaar
 - Indien velirritasie ontstaan: Kry mediese hulp.
 - Raak ontslae van inhoud en houer deur na 'n gevaarlike- of spesiale-afval insamelsplek te besorg.
- Dra 'n gesigskerm, rubberhandskoene en -stewels wanneer die spuitmengsel aangemaak word.
 - Dra 'n hoed, neus- en mondbeskerming, katoenoorpak, rubberhandskoene en skoene wanneer die spuitmengsel toegedien word.
 - Was besmette klere daaglik.
 - Voorkom besoedeling van die oë, velkontak en inaseming van die spuitnewel.
 - Moenie oor watermassas soos damme, poele, riviere, strome of visteeldamme gespuit word of toegelaat word dat spuitnewel daarheen waai nie.
 - Leë houers moet **DRIE KEER UITGESPOEL** word soos volg. Keer die leë houers om oor die spuitteknik of mengbak en dreineer vir minstens 30 sekondes nadat die vloeitot 'n gedrupte verminder het. Spoel die houers daarna drie keer uit met 'n volume water gelykstaande aan 'n minimum van 10% van die houers. Gooi die spoelwater by die inhoud van die spuitteknik voordat die houers op die voorgeskrewe wyse vernietig word.
 - Moenie die leë houers vir enige ander doel hergebruik nie maar vernietig dit deur gate in te kap en plat te slaan en doen weg daarmee op 'n veilige manier.
 - Voorkom besoedeling van voedsel, voer, drinkwater en eetgerei.

SIMPTOME VAN VERGIFTIGING

Doorie gevoel met speldeprikkel in hande en voete, long edeem en stuiptrekkings.

RELEVANTE STOWWE

Gevaarlike bestanddele Volgens UN GHS Kriteria	CAS nommer	Konsentrasie (w/w)
α -cypermethrin (ISO); racemate comprising (R)- α -cyano-3-phenoxybenzyl (1S,3S)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate; (S)- α -cyano-3-phenoxybenzyl(1R,3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate	67375-30-8	9,85 %
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	< 15 %
Poly(oxy-1,2-ethanediyl), .alpha.-[2,4,6-tris(1,1-dimethylethyl)phenyl]-.omega.-hydroxy-	9046-09-7	< 5 %
Alcohols, C12- 15, ethoxylated, phosphates (>1 <2.5 mol EO)	68071-35-2	< 3 %
1,2-Benzisothiazol-3(2H)-one	2634-33-5	< 0,05 %
Bronopol	52-51-7	< 0,05 %
Propane-1,2-diol	57-55-6	< 10 %

NOODHULPBEHANDELING

Remove contaminated clothing.

INDIEN IN DIE OË:	Spoel aangetaste oë vir ten minste 15 minute met lopende water, terwyl die oogde oopgehou word. Raadpleeg 'n oogspesialis.
INDIEN INGESLUK:	Spoel mond dadelik uit en drink 200 – 300 ml water, verkry mediese hulp.
INDIEN OP DIE VEL:	Was aangetaste area dadelik deeglik met seep en water.
INDIEN INGEASEM:	Hou pasiënt kalm en verwyder na vars lug. Verkry mediese hulp.

Aanduiding van enige onmiddellike mediese aandag en spesiale behandeling wat nodig is
Behandeling: Behandel simptome (reinig, belangrikste funksies). Daar is geen spesifieke teenmiddel nie.

WAARSKUWING TEEN WEERSTAND

Fastac® SC is 'n IRAC Insekdodergroepkode 3A insekdoder. Enige populasie van 'n spesifieke insek mag individue insluit wat 'n natuurlike weerstand teen **Fastac® SC**, of enige ander Groepkode 3A insekdoder het. Indien hierdie insekdoders in herhaaldelike en eksklusiewe programme aangewend word, kan die weerstandbiedende individue uiteindelik die insekpopulasie oorheers. Hierdie weerstandbiedende insekte sal waarskynlik nie deur **Fastac® SC** of enige ander groepkode 3A insekdoders, beheer word nie.

Om weerstand teen insekdoders te vertraag:

- Verminder die eksklusiewe, herhaaldelike gebruik van insekdoders in dieselfde Insekdodergroepkode. Wissel af met, of gebruik tenkmengsels van produkte in verskillende Insekdodergroepcodes.
- Sien toepaslike individuele produkietiketette wanneer daar afgewissel word, of tenkmengsels gebruik word, met produkte in ander Insekdodergroepcodes.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies), in insekdoderprogramme.

GEBRUIKSAANWYSINGS: GEBRUIK SLEGS SOOS VOORGESKRYF

Verenigbaarheid:

Moenie benattings- of kleefmiddels of olies by **Fastac® SC** voeg, wanneer sagte vrugte gespuit word nie. Moet nooit meng met seewierekstrakte, amirats, chinometionat, dodien, profiofos en vamidation nie. **Fastac® SC** is fisies en biologies verenigbaar met Bravo® 500 SC (L5208), atrazine SC (L1021), melasse en die meeste mytdoders in algemene gebruik op katoen en met 'n bevorderingsmiddel soos Tronic® in 'n tenkmengsel (kyk **Menginstruksies** hieronder). Indien **Fastac® SC** in kombinasie met enige ander landboumiddel gebruik word, moet uitvoering gegee word aan alle **WAARSKUWINGS, VOORSORGMATREËLS** en **GEBRUIKSAANWYSINGS** soos aangedui op daardie etiket.

Menginstruksies:

Maak die spuittenk halfvol met skoon water. Skud die **Fastac® SC** houër deeglik net voor gebruik. Meet die benodigde volume **Fastac® SC** af en meng dit vooraf met minstens 10 l water. Indien enige ander produk(te) met **Fastac® SC** gemeng gaan word, moet die benodigde volume van hierdie produk(te) op soortgelyke wyse eers vooraf gemeng word. **Fastac® SC** se doeltreffendheid kan benadeel word deur baie harde water (> 1000 dpm opgeloste stowwe) en 'n hoë pH-waarde van die spuitwater omdat **Fastac® SC** baie meer stabiel is teen 'n pH van ongeveer 4. Waar 'n agens gebruik word om die water se pH mee te verlaag, moet die agens eers met die totale volume water wat vir die betrokke tenkmengsel benodig word, gemeng word alvorens die **Fastac® SC** bygevoeg word.

Die byvoeging van melasse het 'n pH-reducerende effek en beperk ook verdamping van die spuitnewel. Vir grondtoediening voeg 10% melasse by per volume en 20% vir lugtoediening. Roer die water in die spuittenk en voeg dan die produk(te) in die tenk in die volgende volgorde (soos van toepassing) by: Versuringsmiddel of bevorderingsmiddel, suspensiekonsentraat, wateroplosbarekonsentraat, emulgeerbarekonsentraat. Vul die spuittenk met water tot by die verlangde vlak terwyl daar voortdurend geroeer word om deeglike vermenging te verseker alvorens daar met toediening begin word. Handhaaf roering gedurende toediening. Aangemaakte spuitmengsel moenie in die spuittenk gelaat word vir 'n onbepaalde tyd, bv. oornag, nie.

Algemene aanwysings:

Suikerriet mag een dag nadat dit gebrand is, geoes word.

Lugtoediening:

Fastac® SC kan slegs deur 'n geregistreerde lugbespuitingsperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS Kode 10118 (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 Spuitmengselvolume van 30 l 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.
- **Druppelbedekking:** 30 – 40 druppels per cm² moet op die teikenarea herwin word.
- **Druppelgrootte:** 'n Druppelspektrum met 'n VMD van 280 – 300 mikron word aanbeveel. Beperk die produksie van druppels kleiner as 150 mikron (hoë drywing en verdampingspotensiaal) tot 'n minimum.
- **Vlieghoogte:** Handhaaf die hoogte van die spuitbalk bo die teiken op 3 – 4 meter. Moenie spuit wanneer die vliegtuig duik, 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 binneste 60 – 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 swaaihgrometer, moenie 8°C oorskry nie.
- Stop bespuiting indien die **windspoed** 15 km/uur 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:
 - Verlaagde effektiwiteit aangesien die druppels as 'n wolk in die lug bly hang en moontlik verdamp (onvoldoende bedekking op teiken).
 - Skade aan nie-teiken gewasse of sensitiewe areas as gevolg van wegdrywing van die spuitwolk na nie-teiken area.
- Verseker dat die lugbespuitingsoperateur presies weat water 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.

Die effektiwiteit van die spuitmengsel mag nadelig beïnvloed word as dit op dig begroeide rygewasse toegedien word. Maak seker dat deeglike penetrasie en benatting verkry word wanneer gespuit is. Die effektiwiteit moet drie dae na toediening gemonitor word. 'n Verdere bespuiting mag nodig wees indien onaanvaarbare vlakke van beheer verkry is.

Gebruiksbeperkings:

- Bestandheid van die Afrika bolwurm (*Helicoverpa armigera*) teen sintetiese piretroïedes is bevestig. As deel van 'n strategie om die ontwikkeling van grootskaalse bestandheid te voorkom, moet die volgende riglyne nagevolg word, vir die beheer van *Helicoverpa armigera*.

KATOEN:

Sintetiese piretroïedes moet slegs gedurende die periode 1 Januarie tot 1 Maart op katoen toegedien word.

ALLE ANDER GEWASSE:

Moenie meer as twee toedienings per groeiseisoen toedien nie.

As 'n piretroïedbespuiting swak beheer gee, moenie met enige sintetiese piretroïed, selfs teen 'n korrektiewe dosis, herspuit nie. Gebruik 'n produk uit 'n ander chemiegroep.

- Wanneer die grondoppervlak droog is, is snywurms geneig om ondergronds te voed en skade aan saailinge is gewoonlik nie sigbaar totdat die plante begin verwelk nie. Indien daar in droë

grond geplant word, of wanneer die grond kort na plant vinnig uitdroog, kan swak beheer van snywurms verwag word, aangesien die plaag nie met die produk op die grondoppervlak in aanraking kom nie. Opvolgbespuiting sal nie die probleem herstel, tensy die grondoppervlak klam is nie.

Alle toedienings moet gemaak word met geskikte toerusting, wat in goeie werkende toestand en korrek gekalibreer is, ten einde die verlangde bedekking te gee vir die betrokke toedieningsmetode.

GEWAS	PLAAG	DOSIS	GEBRUIKSAANBEVELINGS
ALLE RYGEWASSE	Snywurm (<i>Agrotis</i> spp.)	0,20 m ² /100 meter ry 65 m ² /ha 65 m ² /ha 0,15 m ² /100 meter ry 50 m ² /ha 65 m ² /ha	<p>Kan as 'n voorkomende- of korrektiewe behandeling (vooropkoms-of na-opkomsbehandeling) gebruik word. Dien toe op 'n goed voorbereide saadbed sonder kluitte en oormatige plantreste (sien hieronder vir voorskrifte ten opsigte van minimum bewerkings- praktyke). Om bevredigende beheer te verkry is dit nietemin noodsaaklik dat die grond tot op die oppervlak klam moet wees ten tye van toediening. Herhaal die toediening indien 'n herbesmetting sou voorkom.</p> <p>A. VOORKOMEND (vooropkomsbehandeling): Word aanbeveel op lande waar snywurmaanvalle gewoonlik voorkom of verwag kan word.</p> <p>Grondtoediening: Rybehandeling: Dien toe in minstens 3 ℓ water/100 meter rylengte. Dien toe in 'n band wat minstens 300 mm wyd is oor die ry. Vermeerder die dosis ooreenkomstig indien in 'n wyer band toegedien word.</p> <p>Algehele grondbehandeling: Dien toe in minstens 300 ℓ water/ha.</p> <p>Lugtoediening: Dien toe in 30 ℓ water/ha volgens die voorskrifte onder Algemene aanwysings hierbo.</p> <p>B. KORREKTIEF (na-opkomsbehandeling): Word aanbeveel wanneer 5% (of meer) saailinge tekens van beskadiging toon.</p> <p>Grondtoediening: Rybehandeling: Dien toe volgens die vooropkomsbehandeling hierbo.</p> <p>Algehele grondbehandeling: Kyk vooropkomsbehandeling.</p> <p>Lugtoediening: Dien toe in 30 ℓ water/ha volgens die voor- skrifte onder Algemene aanwysings hierbo.</p> <p>LET WEL: Indien minimum bewerkingspraktyke toegepas word (soos deur sommige melleboere) moet die snywurmbevolking baie sorgvuldig gemonitor word na die aanvanklike bespuiting aangesien sulke lande die neiging het om uitermate hoë snywurm- bevolkings te huisves, wat 'n opvolgbehandeling kan benodig. In so 'n geval word dit aanbeveel om 'n algehele bespuiting toe te dien teen die gepaste korrektiewe toedieningsdosis.</p> <p>Kyk ook Gebruiksbeperkings vir 'n beskrywing van toestande waartydens swak beheer van snywurms verwag kan word.</p>
AARTAPPELS	Aartappelmot (<i>Phthorimaea operculella</i>); Klein kommandowurm (<i>Spodoptera exiqua</i>)	100 m ² /ha	<p>Dien voorkomend toe as 'n volle dekbespuiting sodra plante een maand oud is en herhaal elke 8 – 14 dae. Die gewas moet minstens twee keer opge-erd word gedurende die groeiseisoen om te verseker dat die knolle met grond bedek is. In gevalle waar die gewas vir 'n tyd in die grond gaan lê voor oes, verseker dat geen krake in die grond oor die rye voorkom wat vir die motte 'n geleentheid bied om die knolle direk aan te val nie.</p> <p>Grondtoediening: Afhangende van die plantgrootte dien toe in 300 – 500 ℓ water/ha. Verseker deeglike penetrasie en benatting. (Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS).</p>

GEWAS	PLAAG	DOSIS	GEBRUIKSAANBEVELINGS
APPELS en PERE	Afrika bolwurm (<i>Helicoverpa armigera</i>) Bladroller (<i>Tortrix capnesana</i>); Kodlingmot (<i>Cydia pomonella</i>) Gebande vrugte- kalender (snuikewer) (<i>Phyctinus callosus</i>)	5 m ² /100 ℓ water (0,0005% a.b.) 5 m ² /100 ℓ water (0,0005% a.b.) 10 m ² /100 ℓ water (0,001% a.b.)	<p>Dien toe as 'n korrektiewe bespuiting wanneer nodig. Moenie voor 75% blomblaarval toedien nie. Sal ook kodlingmot beheer en kalender (snuikewer) onderdruk. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo.</p> <p>Hoë volume toediening: Dien 125 – 175 m² Fastac® SC /ha toe.</p> <p>Dien die eerste bespuiting toe teen 75% blomblaarval. Herhaal elke 14 dae in boorde waar hoë besmettings intensiewe beheer noodsaak of waar feromoonlokalbespuitings voorgeskryf word. Herhaal elke 21 dae in boorde waar lae besmettings ondervind word. Sal ook kalender (snuikewer) onderdruk en Afrika bolwurm beheer.</p> <p>Hoë volume toediening: Dien 125 – 175 m² Fastac® SC /ha toe.</p> <p>Dien twee bespuitings toe: Die eerste teen 75% blomblaarval en die tweede vier weke later. 'n Derde bespuiting kan in die middel van Januarie toegedien word om beskadiging laat in die seisoen te verhoed.</p> <p>Hoë volume toediening: Dien 250 – 350 m² Fastac® SC /ha toe.</p> <p>Hierdie bespuiting sal aanvanklik ook Amerikaanse bolwurm en kodlingmot beheer.</p>
BONE	Afrika bolwurm (<i>Helicoverpa armigera</i>) Snywurm (<i>Agrotis</i> spp.)	100 m ² /ha 100 m ² /ha	<p>Dien toe sodra eiers of larwes voorkom. Herhaal toediening elke 14 dae of soos deur verkenning van die gewas bepaal. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo.</p> <p>Grondtoediening: Dien toe in nie minder nie as 300 ℓ water/ha.</p> <p>Lugtoediening: Dien toe in 30 ℓ water/ha.</p> <p>Verseker deeglike penetrasie en benatting. (Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS).</p> <p>Kyk ALLE RYGEWASSE hierbo.</p>
BOSAANPLANTING:	Bloekombome Dennebosse Proteas Akasia-soorte Eikebome Populierbome Wattelpantasies Wilgers	35 m ² /ha 70 m ² /ha	<p>Lugbespuiting: Dien toe in 30 ℓ water/ha wanneer die meeste eiers reeds uitgebrei het.</p> <p>Lugbespuiting: Dien toe in 30 ℓ water/ha wanneer die sakwurms aktief is, gewoonlik in November / Desember.</p>
ERTJIES	Afrika bolwurm (<i>Helicoverpa armigera</i>); Klein kommandowurm (<i>Spodoptera exiqua</i>) Snywurm (<i>Agrotis</i> spp.)	100 m ² /ha 100 m ² /ha	<p>Dien toe sodra eiers of larwes voorkom. Herhaal toediening elke 14 dae of soos deur verkenning van die gewas bepaal. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo.</p> <p>Grondtoediening: Dien toe in nie minder nie as 200 ℓ water/ha.</p> <p>Lugtoediening: Dien toe in 30 ℓ water/ha.</p> <p>Verseker deeglike penetrasie en benatting. (Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS).</p> <p>Kyk ALLE RYGEWASSE hierbo.</p>

GEWAS	PLAAG	DOSIS	GEBRUIKSAANBEVELINGS
GRAANSORGHUM	Afrika bolwurm (<i>Helicoverpa armigera</i>) Snywurm (<i>Agrotis</i> spp.) Stamboorder (<i>Busseola fusca</i>)	1,0 m ³ /100 meter ry 100 m ³ /ha 1,25 m ³ /100 meter ry 125 m ³ /ha	Dien toe wanneer die plaag voorkom. Indien bolwurmlarwes binne-in die aar verskui is, mag beheer nie na wense wees nie. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo. Grondtoediening: Rig bespuiting na die are. Dien toe in minstens 2 ℓ water/100 meter ry. Lugtoediening: Dien toe in 30 ℓ water/ha. Verseker deeglike penetrasie en benatting. (Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS). Kyk ALLE RYGEWASSE hierbo. Grondtoediening: Soos vir mielies. Lugtoediening: Soos vir mielies. Verseker deeglike penetrasie en benatting. (Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS hierbo).
GRONDBONE	Afrika bolwurm (<i>Helicoverpa armigera</i>) Snywurm (<i>Agrotis</i> spp.)	100 m ³ /ha 100 m ³ /ha	Dien toe sodra eiers of larwes voorkom. Herhaal toediening elke 14 dae of soos deur verkenning van die gewas bepaal. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo. Grondtoediening: Dien toe in nie minder nie as 200 ℓ water/ha. Lugtoediening: Dien toe in 30 ℓ water/ha. Verseker deeglike penetrasie en benatting. (Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS). Kyk ALLE RYGEWASSE hierbo.
KATOEN	Alle bolwurms, d.w.s. Afrika- (<i>Helicoverpa</i>), rooi- en stekelrige bolwurmlarwes; Vlekbesies		Fastac[®] SC is primêr bedoel as 'n voorkomende beheermaatreël teen alle bolwurmlarwes gebaseer op gereelde weeklikse verkenning, of 'n gereelde spuitprogram toegedien elke 7 dae. Ten einde in te skakel met die beginsels van plaagbestuur en geïntegreerde beheermaatreëls behoort Fastac[®] SC gebruik te word gedurende die tydperk vanaf 1 Januarie tot 1 Maart. Normaalweg sal so 'n bolwurmbeheerprogram 'n aanvang neem wanneer die plante begin blom, d.w.s. ongeveer ses weke na plantopkoms. Van nou af tot spits blomtyd gebruik 'n ander groepkode produk vir die beheer van <i>Helicoverpa</i> bolwurm, soos bepaal deur verkenning. Katoen ouer as 12 weke na plantopkoms word beskou as volgroeiende plante. Fastac[®] SC het 'n mate van afwerende eienskappe teen bolwurmmotte sodat minder eiers op Fastac[®] SC bespuitte plante gelê sal word. Fastac[®] SC weerstaan afwas deur reën op voorwaarde dat die spuitmengsel genoeg tyd gegun word om heeltemal op die plante droog te word. Verseker deeglike penetrasie en benatting. (Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS). A. VOORKOMEND: Dien toe soos bepaal deur die resultate van eierverkenning, d.w.s. vir Afrika bolwurm: gemiddeld 0,5 eiers per plant; rooibolwurm: 0,25 eiers per plant; stekelbolwurm: as twee of meer larwes gevind word gedurende verkenning, d.w.s. nadat 24 plante na willekeur verken is in lande tot 15 ha groot. Verkenning moet weekliks gedoen word vanaf blomstadium tot bolbars. Vlekbesies sal beheer word deur Fastac[®] SC tydens die gereelde bespuitings vir bolwurmlarwes. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo.

GEWAS	PLAAG	DOSIS	GEBRUIKSAANBEVELINGS
KATOEN	Alle bolwurms; blaarvreters, d.w.s. <i>Plusia</i> (valslandmeter) en <i>Spodoptera</i> Snywurm (<i>Agrotis</i> spp.)	50 m ³ /100 ℓ water (0,005% a.b.) 50 m ³ /100 ℓ water (0,5 m ³ tot 1 m ³ /100 meter ry) 50 m ³ of 100 m ³ /ha 62,5 m ³ of 125 m ³ /ha 50 m ³ /100 ℓ water (0,015% a.b.) 150 m ³ of 300 m ³ /ha 175 m ³ of 350 m ³ /ha	Grondtoediening: Met spuitbalk en hidrouliese spuitneuse: Verseker deeglike bedekking van die plante. Vir plante kleiner as 600 mm dien 100 ℓ spuitmengsel /ha toe. Vir groter plante vermeerder die volume spuitmengsel geleidelik tot 200 ℓ /ha vir volgroeiende katoen. Moenie minder as 100 m ³ Fastac[®] SC /ha op volgroeiende katoen gebruik nie. "Treinspoor" behandeling: Dien 50 – 100 ℓ spuitmengsel /ha toe afhange van plantgrootte. Monteer minstens 5 geskikte holkegelspuitneuse bo-oor die "treinspoor" sodat een spuitneus direk bo-oor elke ry sal spuit, een in die middel van die twee ry en een aan elke buitekant van die ry sal spuit. Om die beste bedekking te verkry behoort die twee buitenste spuitneuse op valarms gemonteer te word en wel teen 'n 45° opwaartse hoek. Newelblaser: Gebruik die laer dosis op katoen kleiner as 600 mm hoog en die hoër dosis op katoen hoër as 600 mm. Moenie minder as 100 m ³ Fastac[®] SC /ha op volgroeiende katoen gebruik nie. Lugtoediening: Soos vir toediening met 'n newelblaser deur in 30 ℓ water/ha toe te dien. B. KORREKTIEWE NOODBEHEERMAATREËL: Waar so 'n noodtoestand sou ontstaan byvoorbeeld as gevolg van weersomstandighede wat toedienings verhoed het, kan Fastac[®] SC as 'n ware korrektiewe bespuiting toegedien word. Hierdie aanbeveling moet beskou word as 'n noodmaatreël indien 'n uitermate hoë bolwurm- of blaarvretersbevolking wat in verskillende stadia van ontwikkeling is in die gewas gevestig geraak het. Rooibolwurmlarwes wat in 'n laat stadium van ontwikkeling is en gevestig is binne-in bolle sal wisselvallig beheer word. Sukses van die behandeling sal afhang van toediening, die gewas se lowerdigtheid, stand, en larwes se stadia van ontwikkeling. Laat ongeveer vier dae toe vir Fastac[®] SC om sy volle effek te bereik. Na so 'n korrektiewe toediening moet teruggekeer word tot die gereelde program afgesien van die groei stadium van die gewas. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo. Grondtoediening: Met spuitbalk en hidrouliese spuitneuse: Verseker deeglike bedekking van die plante. Vir plante kleiner as 600 mm dien 100 ℓ spuitmengsel /ha toe. Vir groter plante vermeerder die volume spuitmengsel geleidelik tot 200 ℓ /ha vir volgroeiende katoen. Moenie minder as 300 m ³ Fastac[®] SC /ha op volgroeiende katoen gebruik nie. Newelblaser: Gebruik die laer dosis op katoen kleiner as 600 mm hoog en die hoër dosis op katoen hoër as 600 mm. Moenie minder as 300 m ³ Fastac[®] SC /ha op volgroeiende katoen gebruik nie. Lugtoediening: Soos vir toediening met newelblaser deur in 30 ℓ water/ha toe te dien. Kyk ALLE RYGEWASSE hierbo.

GEWAS	PLAAG	DOSIS	GEBRUIKSAANBEVELINGS
KATOEN (Slegs besproei)	Afrika bolwurm (<i>Helicoverpa armigera</i>)	100 ml/ha 125 ml/ha	LARWALE INSPEKSIE TEGNIEK: Ondersoek 24 plante na willekeur op 'n weeklikse grondslag in lande tot 15 ha groot vanaf die begin van blomtyd tot bolbars vir die aanwezigheid van jong Afrika (<i>Helicoverpa</i>) bolwurmlarwes. Let veral op die larfies in groeipunte en jong vrugdele. Dien Fastac® SC onmiddellik toe teen die voorgeskrewe dosis sodra die drempelwaarde van 5 larwes per 25 plante bereik of oorskry is afgesien van die groeistadium van die gewas. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo. Verseker deeglike penetrasie en benutting. (Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS). Grondtoediening: Dien toe met grondtoedieningsapparaat soos hierbo beskryf onder KATOEN: VOORKOMEND . Lugtoediening: Dien toe in 30 ℓ water/ha. Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS .
KOOLGEWASSE	Afrika bolwurm (<i>Helicoverpa armigera</i>); Blaaspootjies; Ruitrugmotlarwes (<i>Plutella maculipennis</i>) Snywurm (<i>Agrotis</i> spp.)	7 ml/100 ℓ water (0,0007% a.b.)	Verseker goeie benutting van die plante. Begin bespuiting sodra die eerste tekens van die plaag voorkom en herhaal brespuitings elke 10 – 14 dae. Hierdie behandeling sal plantuise onderdruk in 'n programbespuiting. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo. Verseker deeglike penetrasie en benutting. (Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS). Kyk ALLE RYGEWASSE hierbo.
KORING	Afrika bolwurmlarwes (<i>Helicoverpa armigera</i>)	100 ml/ha 100 ml/ha	Dien, sodra die ekonomiese drempelwaarde bereik is toe, in genoeg water om goeie benutting en penetrasie te verseker. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo. Grondtoediening: Dien toe in nie minder nie as 200 ℓ water/ha. Lugtoediening: Dien toe in nie minder nie as 30 ℓ water/ha.
LUSERN	Lusernrusper (<i>Collia electa</i>)	50 ml/ha	Dien toe sodra die plaag voorkom. Grondtoediening: Dien toe in 300 ℓ water/ha. Verseker deeglike penetrasie en benutting. (Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS).
MAKADAMIA, PEKAN NEUTE, WALNUTS, HAZELNUTS	Stinkbesie (<i>Nezara viridula</i>) Gebande vrugtekalanders (snuikewer) (<i>Phyctinus callosus</i>) Afrika bolwurm (<i>Helicoverpa armigera</i>)	10 ml/100 ℓ water 10 ml/100 ℓ water (0,001% a.b.) 5 ml/100 ℓ water (0,0005% a.b.)	Dien 'n hoë volume volle dekbespuiting toe wanneer die neute albastergroottes is (Oktober / November). Herhaal vier weke later. 'n Derde bespuiting mag nodig wees 'n verdere vier weke later. Dien toe sodra die eerste tekens van vreetskade voorkom. Herhaal die toediening 3 – 4 weke later indien nodig. Hoë volume toediening: 250 – 350 ml Fastac® SC /ha. Dien toe as 'n volle bedekking korrektiewe bespuiting wanneer nodig. Moenie toedien voor 75% blomblaarval nie. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo. Hoë volume toediening: 125 – 175 ml Fastac® SC /ha.

GEWAS	PLAAG	DOSIS	GEBRUIKSAANBEVELINGS
MIELIES	Afrika bolwurm (<i>Helicoverpa armigera</i>) Snywurm (<i>Agrotis</i> spp.) Stamboorder (<i>Busseola fusca</i>)	1,0 ml/100 meter ry 100 ml/ha 1,25 ml/100 meter ry 125 ml/ha	Dien wanneer die plaag voorkom toe maar nie later as 80% baardverskyning nie. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo. Grondtoediening: Indien rywydtes grondtoediening toelaat, gebruik ten minste 3 ℓ water/100 meter rylengte. Rig spuitneuse na die koppe. Lugtoediening: Dien toe in 30 ℓ water/ha volgens die algemene voorskrifte soos hierbo. Verseker deeglike penetrasie en benutting. (Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS). Kyk ALLE RYGEWASSE hierbo. Dien toe as 'n voorkomende behandeling teen jong larwes gebaseer op verkenning van eiers op plante. Dien toe 7 – 10 dae nadat 5% of meer plante gevind is wat met eiers besmet is. Verkenning moet weekliks gedoen word vanaf 2 – 7 weke nadat die gewas opgekrom het deur ten minste 100 verspreide plante per land vir eiers te ondersoek. As eiers reeds uitgebroei het, spuit sodra die besmetting opgemerk word. Larwes wat langer is as 10 mm of larwes wat alreeds die stam binnegedring het, sal nie doeltreffend beheer word nie. Vir die beheer van die tweede generasie stamboorderlarwes, word aanbeveel dat die motvlugte gemonitor word. Grondtoediening: Rig die bespuiting in die kelk in. Dien toe in voldoende water d.w.s. 3 ℓ water/100 meter rylengte. Dit sal tot gevolg hê dat 125 ml en 62,5 ml Fastac® SC /ha op een en twee meter rylwydtes onderskeidelik gebruik sal word. Lugtoediening: Dien toe in 30 ℓ water/ha volgens die algemene voorskrifte vir grondtoediening. Verseker deeglike penetrasie en benutting. (Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS).
PERSKES	Afrika bolwurm (<i>Helicoverpa armigera</i>) Gebande vrugtekalanders (snuikewer) (<i>Phyctinus callosus</i>) Kodlingmot (<i>Cydia pomonella</i>)	5 ml/100 ℓ water (0,0005% a.b.) 10 ml/100 ℓ water (0,001% a.b.) 5 ml/100 ℓ water (0,0005% a.b.)	Dien as 'n volle bedekking korrektiewe bespuiting toe wanneer nodig. Moenie toedien voor 75% blomblaarval nie. Sal ook kodlingmot beheer. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo. Hoë volume toediening: 125 – 175 ml Fastac® SC /ha. Dien toe sodra die eerste tekens van vreetskade voorkom. Herhaal die toediening 3 – 4 weke later indien nodig. Hoë volume toediening: 250 – 350 ml Fastac® SC /ha. Dien die eerste volle bedekkingspuit toe teen 75% blomblaarval. Herhaal elke 14 dae in boorde waar 'n hoë besmettingsdruk intensiewe beheermaatreëls regverdig of soos bepaal deur feromoonlokkvalle. Herhaal elke 21 dae waar lae besmettingsdruk ondervind word. Sal ook Afrika bolwurm beheer en kalander (snuikewer) onderdruk. Hoë volume toediening: 125 – 175 ml Fastac® SC /ha.

GEWAS	PLAAG	DOSIS	GEBRUIKSAANBEVELINGS
PERSKES	Vals kodingmot (<i>Cryptophlebia leucotreta</i>)	5 ml/100 ℓ water (0,0005% a.b.)	Vroeë kultivars: Dien toe as 'n volle dekbespuiting ses weke voor die plukdatum en herhaal die toediening elke 14 dae. Laat kultivars: Dien toe as 'n volle dekbespuiting agt weke voor die plukdatum en herhaal die toediening elke 14 dae. In die somerreeënvalgebiede moet die eerste bespuiting nie later as die derde week in Desember toegedien word nie. Inmaakperskes: Soos hierbo, maar bespuitings kan toegedien word tot drie dae voor pluk. Hoë volume toediening: 125 – 175 ml Fastac® SC /ha. Alle kultivars: Dien toe as 'n volle dekbespuiting agt weke voor die plukdatum of soos voorgeskryf deur feromoonlokvalle en herhaal elke twee weke. In die somerreeënvalgebiede moet die eerste bespuiting nie later as die derde week in Desember toegedien word nie. Perskes bestem vir inmaak kan tot drie dae voor pluk bespuit word. Hierdie behandeling sal ook vals kodingmotlarwes beheer. Hoë volume toediening: 250 – 350 ml Fastac® SC /ha.
	Vrugtevlieë (<i>Ceratitis capitata</i> ; <i>Pterandrus rosa</i>)	10 ml/100 ℓ water (0,001% a.b.)	
ROOIBOS	Lepidoptera larwes, (i.e. looper en bolwurm)	100 ml/ha	Dien voorkomend toe as 'n volle dekbespuiting drie maande voor oes of direk na oes. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo.
SITRUS	Miere (<i>Anoplolepis custodiens</i> ; <i>Pheidole</i> spp.)	250 ml/1,0 ℓ water (2,5% a.b.)	Aleenklik vir gebruik saam met Sper Mierversperringsband. Sit Sper aan die boomstam vas volgens voorskrif. Wanneer mieraktiwiteit in die boord begin (gewoonlik vanaf Augustus tot September), moet die Fastac® SC spuitmengsel met 'n geskikte toedieningsapparaat (bv. 'n gewigsdie rugsakspuit) op die veselgedeelte van die Sper toegedien word tot net voordat die spuitmengsel begin afloop. Herhaal die Fastac® SC behandeling wanneer nodig. Geskik vir gebruik in biologiese beheerde boorde.
SUIKERMIELIES	Afrika bolwurm (<i>Helicoverpa armigera</i>); Stamboorders (<i>Busseola fusca</i> ; <i>Sesamia calamistis</i>)	1,0 ml/100 meter ry 100 ml/ha	Volg 'n spuitprogram met die eerste toediening drie weke na plant gevolg deur twee toedienings met 10 – 14 dae tussenposes en 'n vierde en laaste toediening teen ongeveer 10 weke na plant, d.w.s. wanneer die baard uitkom. Hierdie spuitprogram sal ook die oordra van mieliestrepsiekte deur bladspringers onderdruk. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo. Grondtoediening: Dien toe in minstens 3 ℓ water/100 meter rylenge. Lugtoediening: Dien toe in 30 ℓ water/ha.
	Snywurms (<i>Agrotis</i> spp.)		Verseker deeglike penetrasie en benutting. (Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS). Kyk ALLE RYGEWASSE hierbo.
SUIKERRIET	<i>Eldana saccharina</i>	200 ml/ha 200 ml/ha	Grondtoediening: Volg 'n voorkomende spuitprogram, met die eerste toediening aan die begin van Augustus. Herhaal twee weekliks tot 'n maksimum van agt toedienings. Dien as 'n volle dekbespuiting, met 'n newelblaser, in 350 ℓ water/ha toe. Lugtoediening: Dien in 30 ℓ water/ha toe.

GEWAS	PLAAG	DOSIS	GEBRUIKSAANBEVELINGS
TAMATIES	Afrika bolwurm (<i>Helicoverpa armigera</i>)	10 ml/100 ℓ water (0,001% a.b.) 50 of 100 ml/ha	Grondtoediening: Dien toe as 'n volle dekbespuiting sodra die eerste tekens van 'n besmetting opgemerk word. Herhaal toediening elke 7 – 14 dae of soos bepaal deur inspekte van die gewas. Waarskuwing teen bestandheid van Afrika bolwurm: Kyk Gebruiksbeperkings hierbo. Hoë volume: Dien tot 500 ℓ spuitmengsel /ha toe op plante tot 600 mm hoog, en 1000 ℓ/ha of meer op plante hoër as 600 mm, bv. opgeleide tamaties. Moet nie meer as 100 ml Fastac® SC /ha gebruik nie. Newelblaser: Dien toe in 150 – 500 ℓ water/ha. Gebruik die laer dosis en volume op plante tot 600 mm hoog, en die hoër dosis en volume op plante hoër as 600 mm, bv. opgeleide tamaties. Moet nie meer as 100 ml Fastac® SC /ha gebruik nie. Verseker deeglike penetrasie en benutting. (Kyk ook Algemene aanwysings onder GEBRUIKSAANWYSINGS). Kyk ALLE RYGEWASSE hierbo.
	Snywurms (<i>Agrotis</i> spp.)		
WEIDING	Kommandowurm (<i>Spodoptera exempta</i>)	100 ml/ha 100 ml/ha	Dien toe sodra die plaag voorkom. Grondtoediening: Dien toe in minstens 300 ℓ water/ha ten einde deeglike bedekking te verseker. Lugtoediening: Dien toe in 30 ℓ water/ha.
WINGERD	Kalanders (snuikewers) (<i>Phyllocnist callosus</i> ; <i>Erennum setulosus</i>)	10 ml/100 ℓ water (0,001% a.b.)	Dien toe as 'n volle dekbespuiting en sorg vir deeglike benutting van die hele plant. Begin bespuitings sodra die eerste beweging of voeding van die kalanders (snuikewers) voorkom en herhaal binne 21 dae indien nodig. Die eerste tekens van kalanders (snuikewers) varieër volgens gebied maar kan vanaf middel Oktober tot middel November ver wag word.
	Argentynse mier (<i>Linepithema humile</i>)	100 ml/10 ℓ water	Slegs vir gebruik in opgeleide wingerd. Dien aan die begin van die seisoen toe, wanneer die miere begin kos soek in die blare/dak. Dien tot die punt van afloop toe met 'n growwe sproei, direk aan die onderste 30 cm van die wingerdstamme. Gebruik 'n ringspuitverbinding aan die lams van die rugsakspuit. Een toediening per seisoen behoort voldoende te wees, maar, waar hoë miereinfestasië voorkom, mag nog 'n toediening nodig wees. Die oplepale en enige ander struktuur waarteen miere opklim, moet ook behandel word. Onkruidbeheer is ook van belang. Verken die wingerd gereeld vir die aanwesigheid van miere.
	Malmir (<i>Anoplolepis custodiens</i> en <i>A. steingroever</i>)	200 ml/10 ℓ water	

Bravo® 500 SC is 'n Geregisteerde Handelsmerk van Syngenta (Edms) Bpk.
Tronic® is 'n Geregisteerde Handelsmerk van Plaaskem (Edms) Bpk.
Fastac® SC is 'n Geregisteerde Handelsmerk van BASF.

Fastac[®] sc

Reg. No. L4992; N-AR 0810

Act No. 36 of 1947

**READ ATTACHED PACKAGE OR LEAFLET BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

GROUP	3A	INSECTICIDE
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A suspension concentrate contact and stomach insecticide for the control of the pests mentioned on the crops listed.

'n Suspensiekonsentraat kontak- en maaginskoder vir die beheer van die plaë vermeld op die genoemde gewasse.

Hazard statements:

Causes mild skin irritation.

Harmful if swallowed.

Very toxic to aquatic life with long lasting effects

Precautionary statements:

Do not eat, drink or smoke when using this product.

Do not get in eyes, on skin, or on clothing.

Active ingredients / Aktiewe bestanddele:

Alpha-cypermethrin (pyrethroid) 100 g/l

Registered by:

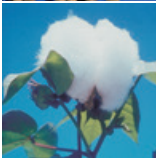
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