

BULLDOCK[®]

Beta 125 SC



SEE ENCLOSED PAMPHLET FOR FULL PARTICULARS BEFORE USING THIS PRODUCT PLEASE READ THE LABEL CAREFULLY

Reg. No. L7612 (Act No. 36 of 1947)
Namibian Reg. No. N-AR 1398
Botswana Reg. No. W1301302 (Act. No. 18 of 1999)

A suspension concentrate insecticide for the control of insect pests mentioned on the crops listed.

SIEN INGESLOTE PAMFLET VIR VOLLEDIGE BESONDERHEDE

Reg. Nr. L7612 (Wet. Nr. 36 van 1947)
Namibiese Reg. Nr. N-AR 1398

'n Suspensie konsentraat insekdoder vir die beheer van die genoemde insekplae op die gewasse soos aangedui.

GROUP / GROEP 3 INSECTICIDE / INSEKODDER



WARNING

HAZARD STATEMENTS:

Harmful if swallowed or if inhaled. Very toxic to aquatic life with long lasting effects. Contains reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one (3:1), 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

PRECAUTIONARY STATEMENTS:

Avoid breathing mist/ spray. Wear protective gloves/ protective clothing/ eye protection/ face protection. IF SWALLOWED, immediately call a POISON CENTER/doctor/physician.

Active ingredient:

Beta-cyfluthrin (pyrethroid).....125 g/l

Aktiewe bestanddeel:

Beta-siflutrin (piretroled).....125 g/l

REGISTERED BY / GEREKISTREER DEUR: Bayer (Pty) Ltd / (Edms) Bpk
Reg. 1968/011192/07

P.O. Box/Posbus 143, Isando 1600 South Africa/Suid-Afrika

TEL: (OFFICE HOURS) / (KANTOORURE) (011) 921 5911

IN CASE OF POISONING PLEASE PHONE / IN GEVAL VAN VERGIFTIGING SKAKEL: 0861 555 777

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Bulldock[®] is 'n geregistreerde handelsmerk van die Bayer Groep.

BATCH NUMBER / LOTNOMMER: See on pack
DATE OF MANUFACTURE / DATUM VERVAARDIG: Sien op houer

UN No. / VN Nr.: 3082

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Insecticide

A suspension concentrate insecticide for the control of insect pests mentioned on the crops listed.

contains:
Beta-cyfluthrin
(pyrethroid)

powerful
protection

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ALLOW THE FOLLOWING DAYS BETWEEN LAST APPLICATION AND HARVEST:

14 DAYS ON LUPINS, LUCERNE, MACADAMIAS, WHEAT AND MAIZE,
56 DAYS ON POTATOES,
28 DAYS ON COTTON,
35 DAYS ON SORGHUM,
4 DAYS ON CRUCIFERAE,
7 DAYS ON PEAS,
3 DAYS ON TOMATOES AND BEANS,
90 DAYS ON ROOIBOS TEA.

NOTE: The recommended withholding period between last application and harvest meets local residue requirements but may not meet export requirements. If the treated crop is intended for the export market, consult the relevant exporting body before application of the product, regarding pre-harvest interval requirements.

Handle with care.

Store away from food and feedstuffs.

Keep out of reach of children, uninformed persons and animals.

In the case of poisoning call a doctor and make label available to him/her.

RE-ENTRY: Do not enter treated area within 1 day after treatment 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. Please refer to the SANS Code of Practice for the aerial application of agricultural chemicals.

ALTHOUGH THIS REMEDY HAS BEEN EXTENSIVELY TESTED UNDER A LARGE VARIETY OF CONDITIONS THE REGISTRATION HOLDER DOES NOT WARRANT THAT IT WILL BE EFFICACIOUS UNDER ALL CONDITIONS BECAUSE THE ACTION AND EFFECT THEREOF MAY BE AFFECTED BY FACTORS SUCH AS ABNORMAL SOIL, CLIMATIC AND STORAGE CONDITIONS; QUALITY OF DILUTION WATER, COMPATIBILITY WITH OTHER SUBSTANCES NOT INDICATED ON THE LABEL AND THE OCCURRENCE OF RESISTANCE OF THE PEST AGAINST THE REMEDY CONCERNED AS WELL AS BY THE METHOD, TIME AND ACCURACY OF APPLICATION. THE REGISTRATION HOLDER FURTHERMORE DOES NOT ACCEPT RESPONSIBILITY FOR DAMAGE TO CROPS, VEGETATION, THE ENVIRONMENT OR HARM TO MAN OR ANIMAL OR FOR LACK OF PERFORMANCE OF THE REMEDY CONCERNED DUE TO FAILURE OF THE USER TO FOLLOW THE LABEL INSTRUCTIONS OR TO THE OCCURRENCE OF CONDITIONS WHICH COULD NOT HAVE BEEN FORESEEN IN TERMS OF THE REGISTRATION. CONSULT THE SUPPLIER IN THE EVENT OF ANY UNCERTAINTY.

PRECAUTIONS:**PRECAUTIONARY STATEMENTS:**

- Avoid breathing mist/ spray
- Wear protective gloves/ protective clothing/ eye protection/ face protection
- IF SWALLOWED, immediately call a POISON CENTER/doctor/physician

Wash with soap and water immediately after use or accidental contact.

Do not eat, drink or smoke whilst applying or before washing hands and face.

Wash contaminated clothing daily.

Clean applicator after use, dispose of wash water where it will not contaminate crops, grazing, rivers and dams.

Avoid spray drift onto other crops, grazing, rivers, and dams.

Rinse empty container three times with a volume water equal to at least one tenth of that of the container and add the rinsings to the contents of the spray tank before disposing of the container in the prescribed manner.

Destroy empty container by perforation and flattening and never use for any other purpose.

Prevent contamination of food, feedstuffs, drinking water and eating utensils.

RELEVANT SUBSTANCES:

Formulation inert	CAS Number	Conc. (%)
Beta-cyfluthrin	68359-37-5	11.6
Alkylaryl/polyglycol ether	104376-75-2	> 1 – < 25

RELEVANT SUBSTANCES (cont.):

Formulation inert	CAS Number	Conc. (%)
Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one	2634-33-5 25265-71-8 7732-18-5	> 0,0002 – < 0,0015
1,2-Benzisothiazol-3(2H)-one	14433-76-2	> 0,005 – < 0,05

FIRST AID TREATMENT:

General advice: Move out of dangerous area. Place and transport victim in stable position (tying sideways). Remove contaminated clothing immediately and dispose of safely.

Inhalation: Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.

Skin contact: Immediately wash with plenty of soap and water for at least 15 minutes. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. In case of skin irritation, application of oils or lotions containing vitamin E may be considered. If symptoms persist, call a physician.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. Apply soothing eye drops, if needed anaesthetic eye drops. Get medical attention if irritation develops and persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed:

Local: Skin and eye paraesthesia which may be severe (usually transient with resolution within 24 hours). Skin, eye and mucous membrane irritation, Cough, Sneezing.

Systemic: Discomfort in the chest, Tachycardia, Hypotension, Nausea, Abdominal pain, Diarrhoea, Vomiting, Dizziness, Blurred vision, Headache, Anorexia, Somnolence, Coma, Convulsions, Tremors, Prostration, Airway hyper reaction, Pulmonary oedema, Palpitation, Muscular fasciculation, Apathy.

Indication of any immediate medical attention and special treatment needed:

Risks: This product contains a pyrethroid.

Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning.

Local treatment: Initial treatment: symptomatic.

Systemic treatment: Initial treatment: symptomatic.

Monitor: respiratory and cardiac functions.

In case of ingestion gastric lavage should be considered and in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable.

Keep respiratory tract clear. Oxygen or artificial respiration if needed.

In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens. If not effective, phenobarbital may be used.

Contraindication: atropine, derivatives of adrenaline.

There is no specific antidote. Recovery is spontaneous and without sequelae.

RESISTANCE MANAGEMENT:

For resistance management, **Bulldock Beta 125 SC** is a group code 3 insecticide. Any insect population may contain individuals naturally resistant to **Bulldock Beta 125 SC** and other group code 3 insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **Bulldock Beta 125 SC** or any other group code 3 insecticides.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate with products from different insecticide group codes.
- Integrate other control methods (chemical, cultural, biological) into insect control programs.

For specific information on resistance management contact the registration holder of this product.

WARNING AGAINST RESISTANCE:

a. Resistance of American bollworm (*Helicoverpa armigera*) to synthetic pyrethroids has been confirmed.

COTTON: Synthetic pyrethroids must ONLY be applied to cotton during the period 1 January to 28 February.

ALL OTHER CROPS: DO NOT apply more than two applications per growing season. If a pyrethroid gives poor performance DO NOT respray with any synthetic pyrethroid, even at a corrective dosage rate. Use a product from a different chemical group.

b. Resistance of diamond-back moth (*Plutella xylostella*) on cruciferae to synthetic pyrethroids has been confirmed. If a pyrethroid gives poor performance DO NOT respray with another synthetic pyrethroid. Use a product from a different chemical group.

AERIAL APPLICATION:

Aerial application of **Bulldock Beta 125 SC** may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SANS 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 to 40 droplets per cm² must be recovered at the target area.
- **Droplet size:** A droplet spectrum with a VMD of 250 to 280 microns is recommended. Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
- **Flying height:** Maintain the height of the spray boom at 3 to 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking.
- Use suitable **atomising equipment** that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomisers within the inner 60 to 75 % of the wingspan to prevent droplets from entering the **wingtip vortices**.
- The difference in **temperature** between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8 °C.
- Stop spraying if the **wind** speed exceeds 15 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.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED.

COMPATIBILITY:

Bulldock Beta 125 SC is compatible with **Flint 500 SC** (L8866), **Folicur 250 EW**, (L3857), **Melody Duo 69 WG** (L6714), **Milraz 76 WP** (L2879) and **No Blite** (L6681).

APPLICATION TABLE:

CROP/PEST	DOSAGE RATE	REMARKS
ALL CROPS Cutworm	40 mℓ/ha	Apply as an overall soil cover spray at first signs of infestation. Ground application: Apply in 250 ℓ water/ha. Aerial application: Apply in at least 30 ℓ water/ha.
	0,12 mℓ/100 m row	Band application: Apply as a 30 cm band over the row in at least 3 ℓ water at first signs of infestation.
NOTE: For effective control of cutworms sufficient moisture in the top 3 cm of soil is necessary.		

CROP/PEST	DOSAGE RATE	REMARKS
AVOCADOS Fruit sucking bugs (<i>Nezara viridula</i> , <i>Pseudotheraptus wayi</i> , <i>Taylorilygus</i> spp.)	Ground application 6 mℓ/100 ℓ water	Apply as a single medium cover spray at the end of flowering.
BEANS, SOYBEANS American bollworm	60 mℓ/ha	Apply at first signs of infestation and repeat if necessary. Ground application: Apply in 300-500 ℓ water/ha. Aerial application: Apply in at least 30 ℓ water/ha.
CANOLA American bollworm	60 mℓ/ha	Aerial application: Apply at first signs of infestation in at least 30 ℓ water/ha. Add a suitable wetting agent. Repeat if necessary.

COTTON:

See **WARNING AGAINST RESISTANCE** above.

Bulldock Beta 125 SC is intended to be used during the period from peak flowering to boll split, i.e. from about 10/12 to 20 weeks after plant emergence. It is primarily intended to be applied as a preventive control measure based on regular weekly scouting or in a regular spray programme at seven-day intervals.

Preventive application: Apply **Bulldock Beta 125 SC** as soon as counts for the different bollworm species reach the following values on 24 plants:

American bollworm	12 eggs or two larvae
Red bollworm	6 eggs or two larvae
Spiny bollworm	two larvae

For the period beginning of flowering to peak flowering (10/12 weeks after plant emergence) pesticides which do not affect the parasite/predator complex too severely should be used (e.g. **endosulfan**).

Regular spray programme:

Bollworm, stainer 7-day interval	60 mℓ/ha 75 mℓ/ha	Ground Spray: Apply in 200 ℓ water/ha. Aerial: Apply in 30 ℓ water/ha
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NOTE: All above rates should be halved when applied to cotton smaller than 600 mm high.

Corrective application:

	180 mℓ/ha 180 mℓ/ha	Ground Spray: Apply in 200 ℓ water/ha. Aerial: Apply in 30 ℓ water/ha
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A corrective application must be applied when more than the above number of eggs and larvae per 24 plants are found when scouting.

The programme as recommended above is to be followed thereafter depending on the level of egg counts as determined by routine scouting.

Larvae which have already penetrated the bolls at time of application may not be adequately controlled. Allow at least five days after application for optimal efficacy.

CRUCIFERA

See "**Warning against resistance**" under "**WARNINGS**" above.
Diamond-back moth

4 mℓ/100 ℓ
water

Commence application at first signs of infestation and repeat at intervals of 10-14 days. A suitable surfactant must be added at the registered rate so as to ensure thorough wetting of the plants.

CROP/PEST	DOSAGE/RATE	REMARKS
GRAIN SORGHUM Stalk borer (<i>Busseola fusca</i>)	70 ml/ha	Aerial: Apply at very first signs of infestation but not later than piping stage and re-apply 10-14 days later, in at least 30 ℓ water/ha. Larvae which have already penetrated the stalk will not be satisfactorily controlled. A third application may be necessary depending on the infestation level as determined by routine inspection, especially when the egg-laying period is extended.
American bollworm	60 ml/ha	Apply aerially in at least 30 ℓ water/ha as soon as infestation is noticed but not later than 80 % flowering.
LUCERNE American bollworm, lucerne caterpillar	60 ml/ha	Apply at first signs of infestation and repeat if necessary. Ground application: Apply in 300 ℓ water/ha. Aerial application: Apply in at least 30 ℓ water/ha
LUPINS American bollworm (<i>Helicoverpa armigera</i>)	60 ml/ha	Apply in 300-500 ℓ water/ha as soon as an infestation is noticed. Repeat if necessary. To ensure thorough coverage use cone nozzles.
MACADAMIA Stinkbugs	6 ml/100 ℓ water	Apply as high volume application by using suitable ground spray equipment. Ensure thorough coverage of the nuts, branches and leaves. Application should commence when the nuts are at marble size (October/November) or when the economic threshold level of stinkbug is reached (Refer SAMAC guidelines). Four to five follow-up applications, at 4-5 weekly intervals may be required, depending on re-infestation. Use the shorter interval during wet weather conditions or severe infestations. Avoid season-long application of the same insecticide. Good pest management involves the use of alternative chemical groups to avoid resistance build-up.
MAIZE Stalk borer (<i>Busseola fusca</i>)	0,5 m/100 m row	Ground application: Weekly scouting to be done for stalk borer from two weeks after emergence by inspecting at least 100 plants at random in the land. Apply 7-10 days after 5 % or more plants are found with eggs or immediately if 10 % or more plants are found with "shot-hole" damage on the leaves. Spray to be directed into the maize funnel.
	60 ml/ha	Aerial application: Apply in at least 30 ℓ water/ha.
January-February generation of stalk borer	60 ml/ha	Aerial application: Apply in at least 30 ℓ water/ha. Stalk borer may not be completely eliminated.
NOTE:		
(i) A re-application of Bulldock Beta 125 SC may be necessary after 10-14 days should re-infestation occur especially when the stalk borer egg-laying period is over an extended period.		
(ii) Larvae larger than 10 mm which have left the funnel or have already bored into the stalk, will not be satisfactorily controlled.		
<i>Chilo</i> stalk borer (<i>Chilo partellus</i>)	0,6 ml/100 m row	Apply in 3 ℓ water per 100 m row as soon as 10 % of the plants show damage and repeat application if necessary, shortly before tasselling. Spray into funnels and onto adjoining leaves.
MAIZE APPLICATIONS: The risk of Arrested Ear Syndrome (Blunt Ear Syndrome) increases dramatically when any applications (crop protection products, fertilizers, foliar feeds, adjuvants, etc.) are made between the V10 – VT (10 th) leaf collar – cob tassel emergence) growth stages of maize plants. Applications between the V10-VT growth stages of the crop must be avoided as far as possible.		

CROP/PEST	DOSAGE/RATE	REMARKS
PEAS American bollworm, lesser army worm	60 ml/ha	Apply at first signs of infestation and repeat if necessary. Ground application: Apply in 300-500 ℓ water/ha. Aerial application: Apply in at least 30 ℓ water/ha.
NOTE: A suitable wetter/sticker should be added so as to ensure thorough coverage of the plants.		
PECAN NUTS Pecan stem borer (<i>Eulophonotus myrmeleon</i>)	1,2 ml/10 ℓ water	Apply with a knapsack sprayer directly into the tunnels. Hold the nozzle against the tunnel for 4 seconds and apply approximately 50 ml spray mixture per tunnel.
Bark borer (<i>Salageria</i> spp.)	1,2 ml/10 ℓ water	Apply with a knapsack sprayer to the lesions on the branches. It is not necessary to remove the excretions from the branches before spraying. Do not spray the whole tree.
POTATOES Tuber moth	80 ml/ha	Apply prior to or at first signs of infestation. Repeat at 7-14 day intervals. Ridge at least two times during the growing season to ensure thorough coverage of the tubers with soil.
ROOIBOS TEA Leafhopper (<i>Molopoterus theae</i>) American bollworm (<i>Heliothis armigera</i>) Looper (<i>Isturgia exerraria</i>) Tussock moths (<i>Bracharoa dregei</i>) Snout beetle (<i>Curculionidae</i>) Myrid (<i>Miridae</i>)	100 - 140 ml in 100 - 200 ℓ water/ha	Apply at first signs of infestation and repeat if necessary.
TOMATOES American bollworm, semi-looper	6 ml/100 ℓ water	Ground application: Apply as a high volume full cover spray (500 ℓ/ha for plants up to 600 mm high and 1 000 ℓ or more for plants higher than 600 mm) at first signs of infestation. Repeat every 7-10 days or as necessary, determined by inspection of the crops. Do not use more than 60 ml Bulldock Beta 125 SC /ha.
	30-60 ml/ha	Mist-blower spray apparatus: Apply in 150-500 ℓ water/ha. Use the lower dosage and volume water for plants up to 600 mm high and the higher dosage and volume for plants higher than 600 mm. Do not use more than 60 ml Bulldock Beta 125 SC /ha.
WATTLE PLANTATIONS Wattle bag worm (<i>Kotochalia junodi</i>)	Aerial application 40 ml/ha in at least 30 ℓ water	Begin application at first signs of infestation or during November/December when bag worm are most active.
WHEAT American bollworm	30 ml/ha	Aerial application: Apply in 30 ℓ water/ha at first signs of infestation and repeat if necessary.

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WAARSKUWINGS:

GEVAARVERKLARINGS:

- Skadelik indieningesluk of ingeasem.
- Baie giftig vir waterlewendorganismes met langdurige gevolge.
- Contains reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one (3:1), 1,2-benzisothiazolin-3-one. Mag allergiese reaksie veroorsaak.

LAAT DIE VOLGENDE AANTAL DAE TOE TUSSEN LAASTE TOEDIENING EN OES:

14 DAE OP LUPIENE, LUSERN, MAKADAMIAS, KORING EN MIELIES,
56 DAE OP AARTAPPELS,
28 DAE OP KATOEN,
35 DAE OP SORGHUM,
4 DAE OP KOOLGEWASSE,
7 DAE OP ERTJIES,
3 DAE OP TAMATIES EN BONE
90 DAE OP ROOIBOS TEË

LET WEL: Die aanbevole onthoudingsperiode tussen laaste toediening en oes voldoen aan die vereistes vir plaaslike residuvlakke maar mag dalk nie voldoen aan die vereistes vir uitvoer nie. Indien die behandelde gewas bestem is vir die uitvoermark, skakel met die betrokke uitvoerliggaam voor toediening van die produk, rakende onthoudingsperiodes.

Hanteer versigtig.

Bêre weg van voedsel en voer.

Hou buite bereik van kinders, ongeligte persone en diere.

In die geval van vergiftiging ontbied 'n geneesheer en toon etiket aan hom/haar.

HERBETREDING: Moet nie behandelde gebied betree vir 1 dag na die bespuiting nie, tensy beskermende oorklere gedra word.

LUGBESPUITING: Stel alle inwoners van die onmiddellike gebied wat bespuit gaan word in kennis en rig die nodige waarskuwings. Moenie oor water en aangrensende gebiede spuit nie en sorg dat spuitstofwegdrywing nie dergelike gebiede besoedel nie. Verwys ook na die SANS Gebruikskode vir lugtoediening van landbouchemikalieë.

ALHOEWEL HIERDIE MIDDEL OMVATTEND ONDER 'N GROOT VERSKEIDENHEID TOESTANDE GETOETS IS WAARBORG DIE REGISTRASIEHOÛER NIE DAT DIT ONDER ALLE TOESTANDE DOELTREFFEND SAL WEES NIE AANGESIEN DIE WERKING EN EFFEK DAARVAN BEÏNVOLED KAN WORD 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 DIE PLAAG TEEN DIE BETROKKE MIDDEL SOWEL AS DIE METODE, TYD EN AKKURATHEID VAN TOEDIENING, VERDER AANVAAR DIE REGISTRASIEHOÛER NIE VERANTWOORDELIKHEID VIR SKADE AAN GEWASSE, PLANTEGROEI, DIE OMGEWING OF VIR NADELIGE EFFEK OF MENS OF DIER OF VIR 'N GEBREK AAN PRESTASIE VAN DIE BETROKKE MIDDEL AS GEVOLG VAN DIE VERSMUÏ 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 VERSKAFER IN DIE GEVAL VAN ENIGE ONSEKERHEID .

VOORSORGMATREËLS:

VOORSORGSVERKLARINGS:

- Vermynaseming van stuifsel/spuitstof.
- Dra beskermende handskoene/beskermende kleren/oogbeskerming/gesigbeskerming.
- INDIEN INGESLUK: Verkry onmiddellik mediese noodhulp.

Was met seep en water onmiddellik na gebruik of toevallige velontak.

Moenie eet, drink of rook tydens vermenging, toediening of voordat hande en gesig gewas is nie.

Was besoedelde klere daaglik.

Voorkom oorwaai van spuitstof na ander gewasse, weiding, riviere en damme.

Maak spuitapparaat skoon na gebruik, raak ontslae van uitspoelwater waar dit nie gewasse, weiding, riviere en damme kan besoedel nie.

Spoel lê houer drie keer uit met 'n volume water gelyk aan ten minste een tiende van die van die houer en voeg die uitspoelwater by die inhoud van die spuittenk voordat van die houer op die voorgeskrewe metode ontslae geraak word.

Vernietig lê houer deur gate daarin te maak en plat te slaan. Moet vir geen ander doel weer gebruik nie.

Voorkom besoedeling van voedsel, voer, drinkwater en eetgerei.

RELEVANTE STOWWE:

Formulation inert	CAS Number	Conc. (%)
Beta-cyfluthrin	68359-37-5	11.6
Alkylarylpolyglycol ether	104376-75-2	> 1 – < 25
Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one	2634-33-5 25265-71-8 7732-18-5	> 0,0002 – < 0,0015
1,2-Benzisothiazol-3(2H)-one	14433-76-2	> 0,005 – < 0,05

NOODHULPBEHANDELING:

Algemene advies: Bewege uit die gevaar area uit. Plaas die pasiënt op sy/haar sy en vervoer in 'n stabiele posisie. Verwyder besmette klere onmiddellik en raak op 'n veilige manier daarvan ontslae.

Inaseming: Verskuif na vars lug en hou die pasiënt warm en rustig. Kontak onmiddellik 'n geneesheer of die Gif Beheer Sentrum.

Vel kontak: Was onmiddellik met genoegsame seep en water vir ten minste 15 minute. Warm water kan die subjektiewe erns van die irritasie/parestesie verhoog. Dit is nie 'n teken van sistemiese vergiftiging nie. In die geval van vel irritasie kan die aanwending van olies of rome wat vitamien E bevat oorweeg word. Ontbied 'n geneesheer indien die simptome voortduur.

Oogkontak: Spoel onmiddellik met genoegsame water, ook onder die ooglede, vir ten minste 15 minute. Verwyder kontakense indien teenwoordig, na die eerste 5 minute en gaan dan voort met spoeling. Warm water kan die subjektiewe erns van die irritasie/parestesie verhoog. Dit is nie 'n teken van sistemiese vergiftiging nie. Wend streelende oogdruppels aan en indien nodig, verdwone oogdruppels. Verkry mediese behandeling indien irritasie ontwikkel en voortduur.

Ingesluk: Spoel mond. Moet NIE braking veroorsaak nie. Kontak onmiddellik 'n geneesheer of die Gif Beheer Sentrum.

Belangrikste simptome en gevolge, beide akute en vertraagde:

Lokaal: Vel en oog parestesie wat ernstig kan wees (gewoonlik kortstondig met opklaring binne 24 uur), Vel-, oog- en slymvlies irritasie, Hoes, Nies.

Sistemiese: Ongemak in die bors, Tagikardie, Hipotensie, Naarheid, Abdominale pyn, Diarree, Braking, Duiseligheid, Hoofpyn, Anoreksie, Slaperigheid, Koma, Konvulsies, Bewing, Uitputting, Lugweg hieper reaksie, Longedeem, Trilling, Spier fassikulering, Apatie.

Aanduiding van sommige onmiddellike mediese aandag en spesiale behandeling benodig:

Gevaar

Hierdie produk bevat 'n piretroïed. Piretroïed vergiftiging moet nie verwar word met karbamaat of organofosfaat vergiftiging nie.

Lokale behandeling: Aanvanklike behandeling: simptomaties.

Sistemiese behandeling: Aanvanklike behandeling: simptomaties.

Kontroleer respiratoriese en hart funksies.

In geval van inname moet maagspoeling oorweeg word en in gevalle waar beduidende hoeveelhede ingeneem is, slegs binne die eerste 2 uur. Die toediening van geaktiveerde houtskool en natrium sulfaat is egter altyd raadsaam.

Hou lugweg oop. Suurstof of kunsmatige asemhaling indien nodig. In geval van stuiptrekkings, moet 'n benzodiazepine (bv. diazepam) volgens die standaard aanbeveling gegee word. Indien nie doeltreffend nie, kan phenobarbital gebruik word.

Kontraindikasie: atropien, derivate van adrenalin.

Daar is geen spesifieke teenmiddel nie. Herstel is spontaan en sonder gevolge.

WEERSTANDSBESTUUR:

Bulldock Beta 125 SC is 'n groepkode 3 insekdoder. Enige populasie van 'n spesifieke insek mag individue insluit wat 'n natuurlike weerstand teen **Bulldock Beta 125 SC** of enige ander groepkode 3 insekdoder het. Indien hierdie insekdoders herhaaldelik aangewend word kan die weerstandbiedende individue uiteindelik die insekpopulasie oorneers. Hierdie weerstandbiedende insekte sal waarskynlik nie deur **Bulldock Beta 125 SC** of enige ander groepkode 3 insekdoder beheer word nie.

Om weerstand teen insekdoders te vertraag:

- Vermyn die eksklusiewe herhaaldelike gebruik van insekdoders in dieselfde insekdoder groepkode. Wissel af met, of gebruik tenkingsels van geregistreerde produkte in verskillende insekdoder groepcodes.
- Integreer ander beheermatreëls (chemies, verbouing, biologies) in insekbeheer programme.

Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk.

WAARSKUWING TEEN BESTANDHEID:

a. Weerstand van Amerikaanse bolwurm (*Helicoverpa armigera*) teen sintetiese piretroïedes is bevestig.

KATOEN: Sintetiese piretroïedes MOET SLEGS gedurende die periode 1 Januarie tot 28 Februarie op katoen toegedien word.

ALLE ANDER GEWASSE: Moet nie meer as twee toedienings per groeiseisoen toedien nie. As 'n piretroïedbespuiting swak beheer gee MOET NIE met enige sintetiese piretroïed, selfs teen 'n korrektiewe dosis, herspuit nie. Gebruik 'n produk uit 'n ander chemiegroep.

b. Weerstand van ruitrugmot (*Plutella xylostella*) op koolgewasse teen sintetiese piretroïedes is bevestig. As 'n piretroïedbespuiting swak beheer gee MOET NIE met 'n ander sintetiese piretroïed herspuit nie. Gebruik 'n produk uit 'n ander chemiegroep.

LUGBESPUITING:

Bulldock Beta 125 SC kan slegs deur 'n geregistreerde Lugbespuitingsperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS 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 Spuitmengsel volume 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.
- **Druppel bedekking:** 30 tot 40 druppels per cm² 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.
- **Vlieghoogte:** 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 swaaihgrometer, 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:
 - 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 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.

GEBRUIKSAANWYSINGS: GEBRUIK SLEGS SOOS AANGEDUI.

VERENIGBAARHEID:

Bulldock Beta 125 SC is verenigbaar met **Flint 500 SC** (L8866), **Folicur 250 EW**, (L3857), **Melody Duo 69 WG** (L6714), **Milraz 76 WP** (L2879) en **No Bite** (L6681).

TOEDIENINGSTABEL

GEWAS/PLAAG	TOEDIENINGS-HOEVEELHEID	OPMERKINGS
AARTAPPELS Aartappelmot	80 mℓ/ha	Dien toe voordat of sodra die plaag opgemerk word. Herhaal met 7-14 dae tussen poses. Erd ten minste twee keer op tydens die groeiseisoen om te verseker dat die knolle deeglik bedek is met grond.
ALLE GEWASSE Snywurm	40 mℓ/ha 0,12 mℓ/100 m ry	Dien toe as 'n algehele grond dekbespuiting sodra eerste tekens van besmetting opgemerk word. Grondtoediening: Dien toe in 250 ℓ water/ha. Lugtoediening: Dien toe in ten minste 30 ℓ water/ha. Bandbespuiting: Dien toe as 'n 30 cm band in ten minste 3 ℓ water oor die ry sodra eerste tekens van besmetting opgemerk word.
NOTA: Vir goeie beheer met grond-en lugtoediening is die teenwoordigheid van vog in die boonste 3 cm grond uiters noodsaaklik.		
AVOKADO'S Vrugsuigende besies (<i>Nezara viridula</i> , <i>Pseudaotheraptus wayi</i> , <i>Taylorilygus</i> spp.)	Grondtoediening 6 mℓ/100 ℓ water	Dien toe as 'n enkele medium dekbespuiting tydens die einde van die blomperiode.
BONE, SOJABONE Amerikaanse bolwurm	60 mℓ/ha	Begin bespuiting sodra die eerste tekens van besmetting opgemerk word en herhaal indien nodig. Grondtoediening: Dien toe in 300-500 ℓ water/ha. Lugtoediening: Dien toe in ten minste 30 ℓ water/ha.
CANOLA Amerikaanse bolwurm	60 mℓ/ha	Lugtoediening: Dien toe by eerste tekens van infestasië in ten minste 30 ℓ water/ha. Voeg 'n geskikte benattingsmiddel by. Herhaal indien nodig.
ERTJIES Amerikaanse bolwurm, kleincommandowurm	60 mℓ/ha	Begin bespuiting sodra die eerste tekens van 'n besmetting opgemerk word en herhaal indien nodig. Grondtoediening: Dien toe in 300-500 ℓ water/ha. Lugtoediening: Dien toe in ten minste 30 ℓ water/ha.
NOTA: Voeg 'n geskikte benattingsmiddel by om deeglike benatting van plante te verseker.		

GEWAS/PLAAG	TOEDIENINGS-HOEVEELHEID	OPMERKINGS
KATOEN: Sien Waarskuwing teen bestandheid hierbo.		
Bulldock Beta 125 SC is bedoel om gebruik te word gedurende die periode volle blom tot bolbars, dit wil sê vanaf ongeveer 10/12 tot 20 weke na plantopkoms. Dit is hoofsaaklik bedoel om gebruik te word as 'n voorkomende beheerbespuiting gebaseer op gereelde weeklikse verkenning of as 'n gereelde programbespuiting verkieslik met sewe-dae tussenposes.		
Voorkomende toediening: Dien Bulldock Beta 125 SC toe sodra die tellings vir die verskillende bolwurmspesies die volgende drumpelwaardes bereik per 24 plante.		
Amerikaanse bolwurm	12 eiers of twee larwes	
Rooibolwurm	6 eiers of twee larwes	
Stekelbolwurm	twee larwes	
Vir die periode eerste blom tot volblom (10/12 weke na plant opkoms) moet plaagdoders (bv. endosulfan) wat nie die predator/parasietkompleks so drasties beïnvloed nie, gebruik word.		

Gereelde spuitprogram:		
Bolwurm en vlekbesie	60 ml/ha	Grondtoediening: Dien toe in 200 ℓ water/ha.
7-dae tussenposes	75 ml/ha	Lugtoediening: Dien toe in 30 ℓ water/ha
NOTA: Alle bogenoemde toedieningshoeveelhede kan gehalveer word wanneer op katoen kleiner as 600 mm toegedien word		
Korrektiewe bespuiting:		
	180 ml/ha	Grondtoediening: Dien toe in 200 ℓ water/ha.
	180 ml/ha	Lugtoediening: Dien toe in 30 ℓ water/ha
'n Korrektiewe bespuiting moet toegedien word wanneer meer as bogenoemde aantal eiers en larwes per 24 plante gedurende 'n landinspeksie gevind word. Die spuitprogram soos hierbo aangedui moet daarna toegedien word afhangende van eiertellings, soos bepaal deur gereelde landinspeksies. Larwes alreeds binne-in die bolle sal nie suksesvol beheer word nie. Laat vyf dae toe om die optimum effek van die bespuiting te verkry.		
KOOLGEWASSE		
Sien "Waarskuwing teen bestandheid" onder "WAARSKUWINGS" bo.		
Ruitrugmot	4 ml/100 ℓ water	Begin bespuiting sodra die eerste tekens van 'n besmetting opgemerk word en herhaal elke 10-14 dae. 'n Gepaste benattingsmiddel moet teen die geregistreerde dosis bygevoeg word om 'n goeie benatting van die plante te verseker.
KORING		
Amerikaanse bolwurm	30 ml/ha	Lugtoediening: Dien toe in 30 ℓ water/ha sodra eerste tekens van besmetting opgemerk word en herhaal indien nodig.
LUPIENE		
Amerikaanse bolwurm (<i>Helicoverpa armigera</i>)	60 ml/ha	Dien toe in 300-500 ℓ water per ha sodra 'n besmetting opgemerk word en herhaal indien nodig. Gebruik holkeël spuitneuse om deeglike benatting te verseker.

GEWAS/PLAAG	TOEDIENINGS-HOEVEELHEID	OPMERKINGS
LUSERN		
Amerikaanse bolwurm, lusernrusper	60 ml/ha	Begin bespuiting sodra eerste tekens van besmetting opgemerk word en herhaal indien nodig. Grondtoediening: Dien toe in 300 ℓ water/ha. Lugtoediening: Dien toe in ten minste 30 ℓ water/ha.
MAKADAMIA		
Stinkbesies	6 ml/100 ℓ water	Dien toe as 'n hoë volume bespuiting met 'n geskikte grondbespuitingsapparaat. Verseker deeglike bedekking van die neute, takke en blare. Begin toediening wanneer die neute albastergrootte bereik (Oktober/November) of wanneer die ekonomiese drumpelwaarde van stinkbesie bereik word (Verwys SAMAC riglyne). Vier tot vyf opvolg bespuitings met 4-5 weeklikse tussenposes mag benodig word afhangende van herbesmetting. Gebruik die korter tussenpose tydens nat weerstoestande of swaar besmettings. Moet nie net een insekdoder die hele seisoen spuit nie. Goeie insekbeheer bestuur berus op die gebruik van insekdoders uit alternatiewe chemiese groepe om die opbou van weerstand te verhoed
MIELIES		
Stronkboorder (<i>Busseola fusca</i>)	0,5 ml/100 m ry	Grondtoediening: Weeklikse landinspeksies moet gedoen word vir stronkboorder, vanaf twee weke na opkoms. Ondersoek ten minste 100 plante willekeurig in die land. Toediening moet plaasvind 7-10 dae na 5 % van die plante met eiers gevind is of onmiddellik wanneer 10 % van die plante bokhaelskade op die blare vertoon. Spuit moet gerig word in die kelk in.
	60 ml/ha	Lugtoediening: Dien toe in ten minste 30 ℓ water/ha.
Januarie-Februarie generasie van stronkboorder	60 ml/ha	Lugtoediening: Dien toe in ten minste 30 ℓ water/ha. Stronkboorder mag dalk nie volledig beheer word nie.
NOTA: (i) Opvolgtoediening van Bulldock Beta 125 SC mag na 10-14 dae nodig wees indien herbesmetting plaasvind, veral wanneer die eierlê-periode verleng is. (ii) Larwes wat langer as 10 mm of larwes wat reeds die stam binnegedring het, sal nie doeltreffend beheer word nie.		

<i>Chilo</i> stronkboorder (<i>Chilo partellus</i>)	0,6 ml/100 m ry	Dien toe in 3 ℓ water per 100 m ry sodra 10 % van die plante skade toon en herhaal toediening, indien nodig, kort voor pluimverskyning. Spuit direk in die kelke in en bedek ook die aangrensende blare met spuitstof.
MIELIE AANBEVELING: Die risiko van abnormale kopontwikkeling (AED) in mielies verhoog dramaties indien enige toedienings (gewasbeskermingsprodukte, kunsmis, blaarvoedings, byvoegmiddels ens.) tussen V10 - VT groeistadiums toegedien word. Toedienings tussen V10 - VT groeistadiums moet so ver moontlik vermy word.		

GEWAS/PLAAG	TOEDIENINGS-HOEVEELHEID	OPMERKINGS
PEKANNEUTE Pekanneutstamboorder (<i>Eulophonotus myrmeleon</i>)	1,2 m ³ /10 ℓ water	Dien toe met 'n rugsakspuit direk in die tonnels in. Hou die spuitneus teen die tonnelopening vir 4 sekondes en dien ongeveer 50 m ³ spuitmengsel toe per tonnel.
Basboorder (<i>Salagena</i> spp.)	1,2 m ³ /10 ℓ water	Dien toe met 'n rugsakspuit op die letsels van die plaag op die takke. Dit is nie nodig om die uitskeidings op die takke te verwyder voordat gespuit word nie. Moet nie die hele boom bespuit nie.
ROOIBOS TEE Blaarspringer (<i>Molopoterus theae</i>) Amerikaanse bolwurm (<i>Heliothis armigera</i>) Landmeter (<i>Isturgia exerraria</i>) Tussock moths (<i>Bracharoa dregei</i>) Kalanders (snuitkewers) (<i>Curculionidae</i>) Plant besies (<i>Miridae</i>)	100 - 140 m ³ in 100 - 200 ℓ water/ha	Begin bespuiting sodra eerste tekens van besmetting opgemerk word en herhaal indien nodig.
SORGHUM Stronkboorder (<i>Busseola fusca</i>)	70 m ³ /ha	Lugtoediening: Dien toe met eerste tekens van besmetting maar nie later as pypstadium en herhaal 10-14 dae later. Gebruik ten minste 30 ℓ water/ha. Larwes wat alreeds die stam binnegedring het, sal nie doeltreffend beheer word nie. 'n Derde bespuiting mag nodig wees afhangende van die infestasiedruk soos bepaal deur gereelde landinspeksies, veral wanneer die eierlê-periode verleng is.
Amerikaanse bolwurm	60 m ³ /ha	Lugtoediening: Dien toe in ten minste 30 ℓ water/ha sodra 'n besmetting opgemerk word maar nie later as 80 % blomvoorkoms nie.

GEWAS/PLAAG	TOEDIENINGS-HOEVEELHEID	OPMERKINGS
TAMATIES Amerikaanse bolwurm, vals-landmeter	6 m ³ /100 ℓ water	Grondtoediening: Dien toe as 'n hoë volume volle dekbespuiting (500 ℓ/ha vir plante tot 600 mm hoog en 1 000 ℓ of meer vir plante hoër as 600 mm) sodra eerste tekens van 'n besmetting opgemerk word. Herhaal elke 7-10 dae of soos benodig na inspeksie. Moenie meer as 60 m ³ Bulldock Beta 125 SC /ha gebruik nie.
	30-60 m ³ /ha	Newelspuitapparaat: Gebruik in 150-500 ℓ water/ha. Gebruik die laer aanbeveling en volume vir plante tot 600 mm hoog en die hoër aanbeveling en volume vir plante groter as 600 mm. Moenie meer as 60 m ³ Bulldock Beta 125 SC /ha gebruik nie.
WATTELPLANTASIES Wattelsakwurm (<i>Kotachalia junodi</i>)	Lugtoediening 40 m ³ /ha in ten minste 30 ℓ water	Begin toediening by eerste tekens van infestasië of gedurende November/Desember wanneer sakwurm mees aktief is.

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