



decis®
FORTE

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

Reg. No. L6563 (Act No. 36 of 1947)
Namibian Reg. No. N-AR 0827
Botswana Reg. No. W130424 (Act No. 18 of 1999)

A contact and stomach insecticide formulated as an emulsifiable concentrate, for the control of various insect pests on crops as indicated.

SIEN INGESLOTE PAMFLET VIR VOLLEDIGE BESONDERHEDE

Reg. Nr. L6563 (Wet Nr. 36 van 1947)
Namibiese Reg Nr.: N-AR 0827

'n Kontak- en maaginsedkoder geformuleer as 'n emulgeerbare konsentraat, vir die beheer van verskeie insekplae op gewasse soos aangedui.

GROUP / GROEP 3 INSECTICIDE / INSEKODER



ANGER

HAZARD STATEMENTS:

Flammable liquid and vapour. Harmful if swallowed. Harmful if inhaled. May be fatal if swallowed or enters airways. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness and dizziness. Very toxic to aquatic life with long lasting effects. Repeated exposure may cause skin dryness or cracking.

PRECAUTIONARY STATEMENTS:

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves/ protective clothing/ eye protection/ face protection. IF SWALLOWED, immediately call a POISON CENTER/doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Call a POISON CENTER/ doctor/ physician. Do NOT induce vomiting.

Active Ingredient:

Deltamethrin (pyrethroid)..... 100 g/l

Aktiewe bestanddeel:

Deltametrien (piretroïed)..... 100 g/l

REGISTERED BY / GEREISTREER 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

Decis® is a registered trademark of the Bayer Group

Decis® is 'n geregistreerde handelsmerk van die Bayer Groep

BATCH NUMBER / LOTNUMMER: See on pack

DATE OF MANUFACTURE / DATUM VERVAARDIG: Sien op houër

UN No. / VN Nr.: 1993

Bayer



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FORTE

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Insecticide

A contact and stomach insecticide formulated as an emulsifiable concentrate, for the control of various insect pests on crops as indicated.

contains:

Deltamethrin (pyrethroid)



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RSA/0625/Decis Forte 1L/Sales Panel:
Code: ZA84974633H



WARNINGS:

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IF THE CROP TO BE TREATED IS INTENDED FOR EXPORT, CONSULT THE RELEVANT EXPORTING ORGANISATION REGARDING WITHHOLDING PERIODS. WHEN THIS PRODUCT IS USED ACCORDING TO THE RECOMMENDATIONS SET HEREIN, THE LOCAL MRL'S WILL NOT BE EXCEEDED. BAYER (PTY) LTD CANNOT, HOWEVER, BE HELD LIABLE FOR EXPORT CROPS EXCEEDING THE IMPORT TOLERANCES OF OTHER COUNTRIES.

IN THE CASE OF CROPS GROWN FOR LOCAL CONSUMPTION ALLOW THE FOLLOWING PERIODS BETWEEN LAST APPLICATION AND HARVESTING OR GRAZING.

APPLES & PEARS		7 Days
BEANS		7 Days
CACTUS AND SPINELESS PEAR		3 Days
COTTON	Grazing	28 Days
GRAIN SORGHUM		28 Days
GRAPES		28 Days
GRASS PASTURES	Grazing	3 Days
GROUNDNUTS (PEANUTS)	Grazing	7 Days
HOPS		7 Days
LETTUCE		3 Days
LUCERNE	Grazing	3 Days
LUPINS	Grazing	3 Days
MAIZE & SWEETCORN	Grazing	14 Days
MANGOES		3 Days
ONIONS		28 Days
PAPRIKA		2 Days
PEAS		7 Days
PEACHES, PLUMS & NECTARINES		3 Days
POTATOES		21 Days
SORGHUM	Grazing	2 Days
SWEET POTATOES		3 Days
TOMATOES		2 Days
WHEAT	Grazing	21 Days
		3 Days

Handle concentrate with care.
Store in cool place away from food and feed.
Keep out of reach of children, uninformed persons and animals.
FLAMMABLE - do not store near open flame.
Use of **Decis Forte** in a manner or at a time other than in accordance with directions, may cause excessive residues or have other undesirable results.
Re-entry - Do not enter treated area within one day after treatment unless wearing protective clothing.
In case of poisoning - CALL A DOCTOR AND MAKE THIS LABEL AVAILABLE TO HIM.
Aerial application - notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings.
Do not spray over or allow drift to contaminate adjacent areas, rivers, dams or other areas not under treatment, particularly citrus orchards under integrated bio-control for red scale. Allow at least a 100 m buffer strip between any aerially treated field and a citrus orchard.

Although **Decis Forte** is regarded as crop-safe on most important cultivars, this does not mean that a more sensitive cultivar might not be commercialized in the future. Where a new cultivar is encountered, large areas should not be sprayed without prior testing of **Decis Forte** on that cultivar.

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 PESTS TO 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:

- Do not breathe dust/ fume/ gas/ mist/ vapours/ spray
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- Wear protective gloves/ protective clothing/ eye protection/ face protection
- IF SWALLOWED, immediately call a POISON CENTER/doctor/physician
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- **IF exposed or concerned: Call a POISON CENTER/ doctor/ physician. Do NOT induce vomiting**

Wash contaminated clothing daily.
Wash with soap and cold water immediately after accidental skin contact. In case of eye contact rinse immediately with running water for at least 15 minutes.
Do not eat, drink or smoke whilst mixing or applying or before washing hands and face and changing clothes.
Prevent contamination of food, eating utensils, feed and drinking water.
Prevent spray drift onto other edible crops, grazing, rivers, dams or other areas not under treatment.
Clean all equipment thoroughly after use and do not pollute the environment with wash water.
Do not calibrate aircraft or clear hopper over grazing, crops not under treatment or water sources.
When empty, invert the container over the spray tank or mixing tank and allow it 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 at least one tenth of that of the container and add the rinsing to the contents of the spray tank. Destroy the container by puncturing and flattening. Do not use the container for any other purpose.

RELEVANT SUBSTANCES:

Component	Concentration (%)
Deltamethrin	10.5
2-Methylpropan-1-ol	>1.00 - <3.00
2,6-Di-tert-butyl-4-methylphenol	>0.10 - <0.25
Cyclohexanone	>1.00 - <40.00
Hydrocarbons, C9, aromatics	>20.00
Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts	>= 1.00 - <5.0

FIRST AID TREATMENT:
General advice: Remove contaminated clothing immediately and dispose of safely.
Inhalation: Move the victim to fresh air and keep at rest. Call a physician or poison control centre immediately.

Skin contact: In case of 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 / tingling. 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: Keep at rest. Rinse mouth. Do NOT induce vomiting. Risk of product entering the lungs on vomiting after ingestion. Call a physician or poison control center immediately.

NOTES TO PHYSICIAN:

Symptoms:

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, sleepiness, coma, convulsions, tremors, prostration, airway hyperreaction, pulmonary oedema, palpitation, muscular fasciculation, apathy.

Risks: This product contains a pyrethroid.

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

Treatment:

Local treatment: Initial treatment: symptomatic.

Systemic treatment: Initial treatment: symptomatic.

Monitor: respiratory and cardiac functions.

In case of ingestion gastric lavage should be considered 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.

Contraindication: derivatives of adrenaline.

There is no specific antidote.

Recovery is spontaneous without sequelae.

RESISTANCE WARNING:

For resistance management, **Decis Forte** is a Group Code 3 insecticide. Any insect population may contain individuals naturally resistant to **Decis Forte** 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 **Decis Forte** or any other Group Code 3 insecticides.

Since the presence of resistant insects is difficult to detect prior to insecticide application, it is of the utmost importance that treated areas be inspected at regular intervals to identify the occurrence of insecticide-resistant insects timeously. Bayer (Pty) Ltd will not accept liability for performance failures in the event of a build-up of resistant insects resulting from inadequate resistance management practices as indicated on the label.

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.
- Integrate other control methods [chemical, cultural, biological] into insect control programmes.

Codling moth resistance management

When used to control Codling moth (*Cydia pomonella*) in pome fruit, a maximum of four **Decis Forte** sprays must be applied to a single Codling moth generation.

To prevent or delay the development of resistance, products with other modes of action should be applied for the control of the other two generations. If **Decis Forte** is used for the control of the last generation of the season a product with another mode of action should be used for the control of the first generation in the next season.

American bollworm resistance management

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

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

DO NOT apply more than two pyrethroid applications per growing season. If more sprays are necessary, use a product with a different mode of action.

GENERAL: If a synthetic pyrethroid gives poor performance, **DO NOT** respray with any synthetic pyrethroid, even at a corrective dosage rate. Use a product with a different mode of action (from a different Group Code).

For specific information on resistance management contact your local Bayer CropScience representative.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED

COMPATIBILITY:

Decis Forte is compatible with **Lebaycid 500 EC** (Reg. No. L1270), **Mesurrol 80 WP** (Reg. No. L1896), **Solubor, Ultracide** (Reg. No. L2630) in apples and pears and **Antracrol 70 WP** (Reg. No. L2065) on tomatoes. When applied for cutworm control, **Decis Forte** is compatible with emulsifiable concentrate and suspension concentrate formulations of herbicides belonging to the chloroacetamide and triazine groups. Flocculation sometimes occurs when mixtures are made with herbicides formulated as wettable powders. As formulations of pesticides change, Bayer (Pty) Ltd cannot take the responsibility for continuous testing of **Decis Forte** in the spray tank with other chemicals. Do not mix **Decis Forte** with other chemicals unless prior use has shown the combination physically compatible and non-injurious under conditions of use.

WATER QUALITY:

Water pH

Water with a very high / low pH can negatively influence the efficacy of **Decis Forte**. Ideally the water pH should be between pH 5 and 8. When spray water is above or below these criteria, it must be corrected with a suitable buffering agent.

Application through irrigation systems

In the case of application through an irrigation system, the water used must be as clean as possible, i.e., free of silt, clay and organic material, which are particularly abundant in river water when in flood. Synthetic pyrethroids tend to adhere to these particles, reducing their efficacy

RAINFASTNESS PROPERTIES:

Decis Forte has excellent rainfastness properties, however, if leaves are wet, do not spray.

METHOD OF APPLICATION:

GROUND APPLICATION:

Whether using mistblower or boom and nozzle sprayers, the same dosage rates/ha are applicable. Sprayers must be correctly calibrated to deliver the required volume of spray mixture evenly over the target area. The amount of water needed for good coverage may differ from apparatus to apparatus. The amount of spray mixture used/ha would depend upon the amount required to give adequate coverage with the particular apparatus. Use sufficient water to ensure thorough coverage.

Application in maize for Chilo or maize stalk borer control

Apply using solid cone nozzles (D4/35 or D5/35), mounted two above each row with one nozzle angled down and the second slightly ahead, so as to spray directly into all the funnels and onto adjoining leaves. Use a pressure of not more than 3 bars (40 psi).

APPLICATION BY CENTRE PIVOT AND SPRINKLER IRRIGATION - MAIZE ONLY

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to shut off the pesticide injection pump automatically when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind conditions favour drift beyond the area intended for treatment.

The chemical injection tank should be cleaned before application to remove all fertilizer, pesticide and other foreign matter. The **Decis Forte** / water mixture in the injection tank should be under constant agitation. The irrigation system should provide uniform water flow and should have no leaks. Ensure that no surface pooling of water occurs.

AERIAL APPLICATION:

DO NOT COMMENCE AERIAL APPLICATION BEFORE CONSULTING YOUR **DECIS FORTE** REPRESENTATIVE.

Aerial application may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of STANSA Code 0118 (Aerial Application of Agricultural Pesticides). It is important to 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 are met:

Equipment:

- Use suitable atomising equipment (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product through drift.
- The operator must use a setup that will produce a droplet spectrum with the lowest possible relative span.
- All nozzles / atomisers should be positioned within the inner 75 % of the wingspan to prevent droplets from entering the wingtip vortices.

Application parameters:

- A minimum volume of 30 ℓ spray mixture 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.
- A droplet coverage of 30-40 droplets per cm² must be recovered at the target.
- A droplet spectrum with a VMD of 250-280 microns is recommended. Ensure that the production of fine droplets (smaller than 150 microns) is restricted to a minimum.
- The height of the spray boom should be maintained at 3-4 metres above the target. Do not spray when aircraft is in a climb, at the top or during a dive, or when banking.
- Apply before the crop becomes too dense, thus preventing proper coverage of the plants.

Meteorological conditions:

- The difference between the wet and dry bulb readings as determined by a whirling hygrometer, must not exceed 8°C.
- Do not spray under turbulent, unstable conditions during the heat of the day when rising thermals and downdraughts occur.
- Do not spray under temperature inversion conditions (spraying in or above the inversion layer).
- Do not spray if the wind speed exceeds 15 km/h.

General:

- Ensure that fields are accurately marked and 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.

APPLICATION TABLE:

CROP AND PESTS	DOSAGE	REMARKS
ALL CROPS Cutworms	<u>Ground application:</u> 40 ml / ha <u>Aerial application:</u> 40 ml / ha	Apply pre and / or early post emergence. <u>Overall treatment:</u> Apply in approximately 300 ℓ water/ha. <u>Band treatment:</u> Apply in a band at least 30 cm wide over the row. A rate of 40 ml in approximately 300 ℓ water should be applied per <u>treated</u> ha, e.g., when a band of 45 cm wide is applied over rows planted 90 cm apart, 20 ml of Decis Forte should be applied per <u>planted</u> ha. Apply in at least 30 ℓ water/ha. Refer to "AERIAL APPLICATION".

NOTES:

Soil should be of fine tilth, free from clods and excessive trash. If the crop has already emerged, start spraying as soon as plants show damage. The soil surface must be moist at the time of application, through to a depth of 5 cm

OR

If applied to dry soil, rain or irrigation must wet the soil to a depth of at least 5 cm within 3 days after application
Minimum tillage cultivation typically results in high cutworm populations and, in such situations an overall spray is recommended. Populations should be carefully monitored in case a follow-up treatment is required.
Severe crop damage must be expected in crops planted directly after a winter crop or in fields which had a significant trash or weed cover.

CROP AND PESTS	DOSAGE	REMARKS
APPLES & PEARS Codling moth	<u>High volume application:</u> 2,5 mℓ/100 ℓ water (62,5 - 87,5 mℓ/ha)	NB: See warning against Codling moth resistance under " RESISTANCE WARNING ". Commence application at the beginning of a moth generation or at 75 % petal fall (in the case of the first generation). Repeat at 14-18 day intervals for a maximum of four applications. Apply 2 500 - 3 500 ℓ spray mixture/ha as a full cover spray. Thorough coverage is important.
	<u>Low volume application:</u> 62,5 - 87,5 mℓ/ha	Apply as above in $\frac{1}{4}$ - $\frac{1}{6}$ of the volume of water used for high volume application.
American bollworm	<u>High volume application:</u> 3 mℓ/100 ℓ water (75 - 105 mℓ/ha)	NB: See warning against American bollworm resistance under " RESISTANCE WARNING ". Apply as a full cover spray at 75 % petal drop. For best results, larvae should not exceed 10 mm in length. American bollworm will also be controlled by weevil sprays.
	<u>Low volume application:</u> 75 - 105 mℓ/ha	Apply as above in $\frac{1}{4}$ - $\frac{1}{6}$ of the volume of water used for high volume application.
Banded fruit weevil	<u>High volume application:</u> 6 mℓ/100 ℓ water (150 - 210 mℓ/ha)	Apply 2 500 - 3 500 ℓ spray mixture/ha as a full cover spray at 75 % petal drop. Ensure thorough wetting of the trunk and scaffold branches. Repeat 3 - 4 weeks later. Repeat spray in mid January if necessary. (The interval between a weevil spray and the next Codling moth spray can be extended to 28 days).
Antestia	<u>High volume application:</u> 3 mℓ/100 ℓ water (75 - 105 mℓ/ha)	Apply as a medium cover spray by wetting the leaves and trusses. Antestia will be controlled by Codling moth and weevil sprays.
NOTE: Volume of spray mixture per hectare depends on tree size and leaf coverage. <u>Fruit nibbler:</u> Damage is unlikely when early Codling moth, American bollworm or Banded fruit weevil applications are applied.		

CROP AND PESTS	DOSAGE	REMARKS
BEANS, GROUNDNUTS (PEANUTS), PEAS American bollworm	<u>Ground application:</u> 60 mℓ / ha <u>Aerial application:</u> 60 mℓ / ha	NB: See warning against American bollworm resistance under " RESISTANCE WARNING ". Scout fields weekly from flowering, using a sample size of 25 plants per 15 ha (2 plants / ha). Start spraying when 10 % of the plants are infested. For best results, larvae should not exceed 10 mm in length. Apply in 200 - 500 ℓ water/ha. Apply in at least 30 ℓ water/ha. Refer to "AERIAL APPLICATION".
CACTUS & SPINELESS PEAR (<i>Opuntia</i> spp.) <i>Cactoblastis</i> larvae	<u>High volume application:</u> 4 mℓ/100 ℓ water	Apply as a full cover spray to ensure thorough wetting of cladodes. Start applying when first signs of infestation are noticed or preferably when egg sticks are deposited. Control by a single spray lasts 14 days. New damage may appear between the 14 th and 21 st day after application. Repeat at 14 - 21 day intervals if necessary.
COTTON Bollworms & Stainers (See details below)		In order to comply with the principles of integrated pest management apply Decis Forte during the months of January and February only. Dosage rates are all based on plants taller than 0,6 m. Control strategy should be based on weekly scouting of 24 plants per 15 ha. See thresholds below.
American bollworm		NB: See warning against American bollworm resistance under " RESISTANCE WARNING ". From 12-17 weeks after plant emergence apply when the egg count reaches or exceeds one per 2 plants (12 per 24 plants) or the number of small larvae reaches 5 per 24 plants. From the 18 th week onwards, providing the plant growth has slowed down significantly, Decis Forte can be applied at 14-day intervals, or when the number of small larvae exceeds 5 per 24 plants, whichever is sooner.
Red bollworm		Apply when the egg count reaches or exceeds 1 per 4 plants (6 per 24 plants).

CROP AND PESTS	DOSAGE	REMARKS
COTTON Spiny bollworm		Apply when the larval level reaches or exceeds 4 per 24 plants.
Stainers		Apply as soon as colonies are noted.
Bollworms & Stainers (See details above)	<u>Ground application:</u> Mist blowers, boom sprayers, etc. Evenly spaced rows 60 mℓ / ha "Tramline" rows (e.g. 1 m + 3 m row spacing). 0,6 mℓ/100 m row length <u>Aerial application:</u> 75 mℓ / ha	Apply sufficient spray mixture to ensure good coverage of the plants. 1 m/3 m tramline spacing = 5 000 running m / ha. Apply sufficient spray mixture for good coverage. Mount at least 5 suitable hollow cone spray nozzles, one directly over the top of each row, one nozzle in between the two rows and another nozzle on the outside of each of the two rows. For best coverage the two outside nozzles should be mounted on drop-arms and should point 45° upwards. Apply in at least 30 ℓ water/ha. Refer to "AERIAL APPLICATION".
GRAIN SORGHUM American bollworm		NB: See warning against American bollworm resistance under " RESISTANCE WARNING ". Control strategy should be based on weekly scouting of 25 panicles per 15 ha, from panicle emergence until the grain is hard. Apply when the number of larvae reaches 12 per 25 panicles (for a projected yield of 4 tons/ha), or 25 per 25 panicles (for a projected yield of 2 tons/ha). For best results, larvae should not exceed 10 mm in length and the grain should not have passed the hard dough stage.
	<u>Ground application:</u> 0,6 mℓ/3 ℓ water/ 100 m row <u>Aerial application:</u> 60 mℓ/ha	Apply in a 50 cm band over the row directed at the panicles. D5/45 hollow cone nozzles are preferred. Apply in at least 30 ℓ water/ha. Refer to "AERIAL APPLICATION". Where cultivars which form tight ears are encountered, it is preferable to spray these before the panicles close up, in other words before the grains fill out completely.

CROP AND PESTS	DOSAGE	REMARKS
GRAPES Weevils	<u>High volume application:</u> 6 mℓ/100 ℓ water	Apply as a full cover spray. Ensure thorough wetting of the trunk as well as the rest of the plant. Start applying in mid October and repeat if necessary.
American bollworm	<u>High volume application:</u> 3 mℓ/100 ℓ water	NB: See warning against American bollworm resistance under " RESISTANCE WARNING ". Apply as a medium cover spray, wetting the leaves and bunches. For best results, larvae should not exceed 10 mm in length. Apply when first signs of infestation are noticed. Repeat if necessary.
HOPS American bollworm	<u>High volume application:</u> 5 mℓ/100 ℓ water	Only members of the South African Hop Growers' Association, who have signed an indemnity form with Bayer (Pty) Ltd, may use Decis Forte on hops. NB: See warning against American bollworm resistance under " RESISTANCE WARNING ". Apply as a full cover application at first signs of infestation and ensure good coverage of growing tips and cones.
LETTUCE American bollworm & Cutworms attacking heads	<u>Ground application:</u> 60 mℓ/ha	NB: See warning against American bollworm resistance under " RESISTANCE WARNING ". Apply when the pests are noticed. Repeat if necessary.
LUCERNE Lucerne caterpillar	<u>Ground application:</u> 18 mℓ/ha	Apply in approximately 300 ℓ water/ha. Spray before the pest has removed significant leaf area. Repeat if necessary.
LUPINS American bollworm	<u>Aerial application:</u> 50 mℓ/ha	NB: See warning against American bollworm resistance under " RESISTANCE WARNING ". Scout fields weekly from bud stage using a sample size of 25 plants per 15 ha. Start spraying when 10 % of the plants are infested. For best results, larvae should not exceed 10 mm in length. Apply in at least 30 ℓ water/ha. Refer to "AERIAL APPLICATION".

CROP AND PESTS	DOSAGE	REMARKS
MAIZE Chilo stalk borer (<i>Chilo partellus</i>) Chilo stalk borer is distinguished from Maize stalk borer in having dark-brown spots dorsally and a creamy white colour. Maize stalk borer larvae are darker in colour and have no spots.	<u>Ground application:</u> 0,6 mℓ Decis Forte / 100 m row	This spray programme will control Chilo stalk borer up to tasselling. Control of Chilo stalk borer is drastically reduced if the initial application is made later than 21 days after crop emergence. The first "shothole" damage can be found from 10 days after crop emergence. Application must commence 10 - 14 days after crop emergence or, for application during cooler times of the year, from the 2 to 4-leaf stage. Repeat application at 14-day intervals as required until tasselling. Refer to "GROUND APPLICATION" above. Apply in 3 ℓ water / 100 m row. Repeat application at 7 to 10 day intervals as required until tasselling. See "NOTES" below. Apply in 3 ℓ water / 100 m row. Repeat application at 14-day intervals as required until tasselling. See "NOTES" below.
	<u>Centre pivot and sprinkler irrigation:</u> 60 mℓ / ha	Application must commence only once the plants have reached the 6th leaf stage. Application prior to this stage should be by ground application. Repeat application at 7 - 10 day intervals until tasselling. See "NOTES" below. NB : Centre pivot speed should be set at 100 % (i.e., fastest rotation). In the case of conventional sprinkler irrigation the chemical should be applied during the last 10 - 15 minutes of the irrigation cycle before the pipes are moved to the next position. Refer to "APPLICATION BY CENTRE PIVOT AND SPRINKLER IRRIGATION".
NOTES: Poor stalk borer control will result from applications made to drought stricken maize plants with wilted or rolled up leaves.		

CROP AND PESTS	DOSAGE	REMARKS
MAIZE Maize stalk borer (<i>Busseola fusca</i>) Larvae are darker than those of the Chilo stalk borer and have no spots. Control of leaf and stalk damage	<u>Ground application:</u> 0,5 mℓ / 100 m row	NB: Where infestation is likely, weekly scouting should be done from 21 days after emergence up to the time that the plants come into tassel. Application must commence one week after 5 % of the plants have eggs or immediately after 10 % "shothole" damage (when the youngest leaves of the plant show small transparent patches "windows"). For best results, larvae should not exceed 5 mm in length. Large, well established larvae are poorly controlled. Keep fields under observation in case re-infestation occurs. It may be necessary to make a second application 12-14 days later. Refer to "GROUND APPLICATION" above. See "NOTE" below.
	<u>Aerial application:</u> 50 mℓ / ha	Apply in at least 30 ℓ water /ha. Only for use in conjunction with Biotrap. Refer to Biotrap Maize Stalk Borer (Reg. No. L2982) recommendation. Refer to "AERIAL APPLICATION".
NOTE: Poor stalk borer control will result from applications to drought stricken maize plants with wilted or rolled up leaves.		
Maize stalk borer Control of cob damage during January - February generation	<u>Aerial application:</u> 60 mℓ / ha	NB: With this application cob damage is significantly reduced although Maize stalk borer is not completely eliminated. Consult Biotrap data to establish week 3 of the second moth flight. If the crop is not yet showing full tassel, spray during week 4. If the crop has reached full tassel, damage is low as cobs are well developed and larvae small. If plants are still in the funnel stage, refer to "Control of leaf and stalk damage" above. Refer to "AERIAL APPLICATION".

CROP AND PESTS	DOSAGE	REMARKS
MAIZE Chafer beetle	<u>Aerial application:</u> 150 mℓ / ha	Spray when damage to leaves is evident. Repeat after 14 days if large numbers of beetles are still hatching. (Check holes in soil around base of stems as well as funnels of plants). Beetles need to eat treated foliage before they are controlled. Refer to "AERIAL APPLICATION".

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 (10th 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.

MAIZE & SWEETCORN American bollworm (Cobworm)	<u>Aerial application:</u> 60 mℓ / ha	NB: See warning against American bollworm resistance under " RESISTANCE WARNING ". Scout for eggs at commencement of beard emergence. Apply if eggs are present. Thereafter scout weekly and respray if necessary. Ensure good coverage of the upper third of the plants. Apply in at least 30 ℓ water /ha. Refer to "AERIAL APPLICATION".
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NOTE:

Long season or late sown maize cultivars are normally the ones at risk as they have young cobs within the peak of American bollworm activity. Cobs which are hardening off are not significantly affected even by large populations as these cannot penetrate beyond the tips. It is important that young beards are not severely damaged, as this prevents fertilization of the grain.

MAIZE, SORGHUM, WHEAT, GRASS PASTURES Army worm	<u>Ground application:</u> 60 mℓ / ha	Apply when threat of significant damage to crops and pasture is imminent and preferably when it is evident that no new hatchings are taking place. Will control all larval stages.
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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 (10th 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 AND PESTS	DOSAGE	REMARKS
MANGOES Mango weevil	<u>High volume application:</u> 10 mℓ/100 ℓ water	Apply as a medium cover spray when the fruitlets are 1 cm in diameter (September) followed by a second spray 4 to 5 weeks later, when the fruitlets are 3 to 4 cm in diameter.

NOTE:

The use of this product may lead to an increase in Mango scale numbers.

ONIONS Thrips	<u>Ground application:</u> (High volume) 10 mℓ/100 ℓ water plus a suitable wetter at the recommended rate	Commence treatment at first signs of infestation and repeat at 10 - 14 day intervals if necessary. Use 250 - 500 ℓ spray mixture/ha depending on plant size.
	<u>Ground application:</u> (Low volume) 25 - 50 mℓ/ha	Use the lower dose rate on small onions and the higher rate on large onions.

NOTE:

Do not use on spring onions as this could result in unacceptable residues on the crop.

ORNAMENTALS American bollworm	<u>High volume application:</u> 3 mℓ/100 ℓ water	NB: See warning against American bollworm resistance under " RESISTANCE WARNING ". Apply once bollworms are noticed. Apply sufficient spray mixture to ensure good coverage. Repeat if necessary.
PAPRIKA American bollworm	<u>Ground application:</u> 60 mℓ/ha	NB: See warning against American bollworm resistance under " RESISTANCE WARNING ". Apply at the first signs of bollworm infestation. Use sufficient water to ensure good coverage and thorough wetting of flowers and fruit.

CROP AND PESTS	DOSAGE	REMARKS
PEACHES, NECTARINES, PLUMS Banded fruit weevil	<u>High volume application:</u> 6 mℓ/100 ℓ water (150-210 mℓ / ha)	Apply 2 500 - 3 500 ℓ spray mixture/ha as a full cover spray. Ensure thorough wetting of trunk and scaffold branches. Apply when first signs of infestation are noticed (usually ± mid November - end December) and repeat 3 - 4 weeks later. Repeat in mid-January if necessary.
American bollworm	<u>High volume application:</u> 3 mℓ/100 ℓ water (75 - 105 mℓ / ha)	NB: See warning against American bollworm resistance under " RESISTANCE WARNING ". Apply 2 500 - 3 500 ℓ spray mixture/ha as a full cover spray. Start applying at 75 % petal drop. Repeat 18 - 21 days later if necessary.
	<u>Low volume application:</u> (75 - 105 mℓ / ha)	Apply as above in $\frac{1}{4}$ - $\frac{1}{6}$ of the volume of water used for high volume application.
POTATOES Tuber moth	<u>Ground application:</u> (High volume) 45 - 75 mℓ/ha	Apply prior to, or at the first signs of tuber moth infestation. Repeat at 8 - 14 day intervals. A dose of 45 mℓ/ha is sufficient to give good insect control for the period between 0 and 40 days after emergence. Apply 60 mℓ/ha from 41 - 70 days after emergence and 75 mℓ/ha from day 71 onwards. More than a single application is required for effective control. Ridge at least twice during the growing season. This application will also control cutworms.
	<u>Ground application:</u> (Low volume) 45 - 75 mℓ/ha	Apply as above in $\frac{1}{2}$ - $\frac{1}{6}$ of the volume of water used for high volume application.
SWEET POTATOES Weevil, Hawkmoth larvae, Leafminers	<u>Ground application:</u> 12,5 mℓ/100 ℓ water	Commence spraying preferably before leaf damage is noticed or at the first signs thereof. Repeat at 14-day intervals. Use clean planting material. Ensure that mounds are re-worked to cover soil cracks.

CROP AND PESTS	DOSAGE	REMARKS
TOMATOES American bollworm	<u>High volume application:</u> 3,25 mℓ/100 ℓ water (2 ℓ spray mixture/ 10 cm plant height/ 100 m row length) <u>Low volume application:</u> 0,065 mℓ / 10 cm plant height / 100 m row length	NB: See warning against American bollworm resistance under " RESISTANCE WARNING ". Apply as soon as plants have started flowering or whenever bollworms are expected. For best results, larvae should not exceed 10 mm in length. Repeat at 7 - 10 day intervals. Apply as a full cover spray. For dosage / ha see calculation below. Use sufficient water for good coverage. For dosage / ha see calculation below.
<u>Dosage / ha:</u> Calculate the dosage/ha by using the formulae below: <u>HIGH VOLUME APPLICATION:</u> $\frac{(\text{Total length of rows/ha}) \times (\text{Height of tomatoes in cm} \times 2)}{100} = \text{Volume } (\ell) \text{ of mixture/ha}$ and $\frac{(\text{Volume } (\ell) \text{ of mixture/ha}) \times 3,25}{100} = \text{mℓ } \mathbf{Decis Forte/ha}$ <u>LOW VOLUME APPLICATION:</u> $\frac{(\text{Total length of rows/ha}) \times (\text{Height of tomatoes in cm}) \times 0,065}{100} = \text{mℓ } \mathbf{Decis Forte/ha}$		

CROP AND PESTS	DOSAGE	REMARKS
WATTLE PLANTATIONS Wattle mirid	<u>Aerial application:</u> 40 mℓ /ha	Apply when first signs of infestation are noticed. A second application may be required approximately a month after the 1 st application if the mirid population builds up again. Apply in at least 30 ℓ water/ha. Refer to "AERIAL APPLICATION".
WHEAT American bollworm	<u>Aerial application :</u> 60 mℓ / ha	NB : See warning against American bollworm resistance under " RESISTANCE WARNING ". For best results, larvae should not exceed 5 mm in length. Commence application when 10 % of the ears are infested. Rescout at 7-day intervals. Apply in at least 30 ℓ water/ ha. Refer to "AERIAL APPLICATION".

BAYER (PTY) LTD ACKNOWLEDGES THE FOLLOWING:

<u>PRODUCT:</u>	<u>TRADEMARK OF:</u>
Biotrap®	Wefco Marketing
Ultracide®	Syngenta South Africa (Pty) Ltd

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WAARSKUWINGS :

GEVAAR WAARSKUWINGS:

- Vlambare vloeistof en damp
- Skadelik indien ingesluk
- Skadelik indien ingeasem
- Mag dodelik wees indien ingesluk en in lugweg beland
- Veroorsaak ernstige oogirritasie
- Mag lugwegirritasie veroorsaak
- Mag slaperigheid of duiseligheid veroorsaak
- Baie giftig vir waterlewende organismes met langdurige gevolge
- Herhaalde blootstelling mag dalk droogheid of krake van die vel veroorsaak

INDIEN DIE GEWAS WAT BEHANDEL WORD VIR UITVOERDOELINDES BENUT SAL WORD MOET DIE BETROKKE UITVOERORGANISASIE VIR VOORSKRIFTE RAKENDE ONTHOUDINGSPERIODES GERAADPLEEG WORD.

WANNEER HIERDIE PRODUK GEBRUIK WORD IN OOREENSTEMMING MET DIE AANBEVELINGS HIERIN UITTEENGESIT, SAL DIE PLAASLIKE MRLS NIE OORSKRY WORD NIE. BAYER (EDMS) BPK KAN EGTER NIE VERANTWOORDELIK GEHOU WORD VIR UITVOERGEWASSE, WAT DIE MAKSIMUM RESIDUPERKE VAN ANDER LANDE OORSKRY NIE.

IN DIE GEVAL VAN GEWASSE WAT VIR PLAASLIKE GEBRUIK BESTEM IS, MOET DIE VOLGENDE PERIODES TUSSEN DIE LAASTE TOEDIENING EN OES OF BEWEIDING GELAAT WORD.

AARTAPPELS	2 Dae
APPELS & PERE	7 Dae
BLAARSLAAI	3 Dae
BONE	7 Dae
DRIUWE	28 Dae
ERTJIES	3 Dae
GRASWEIDINGS	Beweiding
GRAANSORGHUM	28 Dae
GRONDBONE	Beweiding
HOPS	7 Dae
KATOEN	Beweiding
KORING	28 Dae
	21 Dae
	Beweiding
LUPIENE	3 Dae
LUSERN	Beweiding
MANGO'S	3 Dae
MIELIES & SUIKERMIELIES	28 Dae
	14 Dae
	Beweiding
PAPRIKA	3 Dae
PATATS	7 Dae
PERSKES, PRUIE & NEKTARIENS	2 Dae
SORGHUM	21 Dae
TAMATIES	Beweiding
TURKSUVYE & KAALBLADTURKSUVYE	3 Dae
UIE	2 Dae

Hanteer konsentraat versigtig.

Berg in 'n koel plek weg van voedsel en voer.

Hou buite bereik van kinders, oningeligte persone en diere.

VLAMBAAR - moenie naby oop vlam stoor nie.

Die gebruik van **Decis Forte** anders as wat voorgeskryf is mag oortollige residu's of ander ongewenste resultate tot gevolg hê.

Herbetreding - Moenie behandelde gebied binne een dag na bespuiting binnegaan nie, tensy beskermende oorklere gedra word.

In die geval van vergiftiging - ONTBIED 'N GENEESHEER EN STEL HIERDIE ETIKET AAN HOM BESKIKBAAR.

Lugtoediening: Stel alle inwoners in die onmiddellike omgewing van die gebied wat behandel gaan word in kennis en reik die nodige waarskuwings uit. Moenie aangrensende gebiede, riviere of damme bespuit, of toelaat dat die sproeinewel daarheen of veral na sitrusboorde onder geïntegreerde biologiese beheer vir rooidopluis oorwaai nie. Laat 'n bufferstrook van minstens 100 m toe tussen enige lugbehandelde land en 'n sitrusboord.

Alhoewel **Decis Forte** as gewasveilig geag word op die meeste belangrike kultivars, beteken dit nie dat 'n meer sensitiewe kultivar nie in die toekoms gekommersialiseer kan word nie. Waar 'n nuwe kultivar teëgekom word, moet groot areas nie behandel word voordat **Decis Forte** op daardie kultivar getoets is nie.

ALHOEWEL HIERDIE MIDDEL OMVATTEND ONDER 'N GROOT VERSEKIDENHEID TOESTANDE GETOETS IS WAARBORG DIE REGISTRASIEHOUE NIE DAT DIT ONDER ALLE TOESTANDE DOELTREFFEND SAL WEES NIE AANGESIEN DIE WERKING EN EFFEK DAARVAN BEÏNVLOED 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 PLAE TEEN DIE BETROKKE MIDDEL SOWEL AS DIE METODE, TYD EN AKKURATHEID VAN TOEDIENING. VERDER AANVAAR DIE REGISTRASIEHOUE NIE VERANTWOORDELIKHEID VIR SKADE AAN GEWASSE, PLANTEGROEI, DIE OMGEWING OF VIR NADELIGE EFFEK OP MENS OF DIER OF VIR GEBREK AAN PRESTASIE AS GEVOLG VAN DIE VERSUIM VAN DIE GEBRUIKER OM ETIKETAANWYSINGS NA TE KOM OF AS GEVOLG VAN DIE ONTSTAAN VAN TOESTANDE WAT NIE KRAGTENS DIE REGISTRASIE VOORSIEN KON WORD NIE. RAADPLEEG DIE VERSKAFER IN DIE GEVAL VAN ENIGE ONSEKERHEID.

VOORSORGMAATREËLS:

VOORSORGMAATREËLS:

- Moet nie poeier/walm/gas/stuifsel/dampe/spuitstof inasem nie.
- Hou weg van hitte, warm oppervlakte, vonke, oop vlamme en ander ontstekingsbronne. Rook verbode.
- Dra beskermende handskoene/beskermende klere/oogbeskerming/gesigbeskerming
- INDIEN INGESLUK: Kry onmiddellik mediese noodhulp.
- INDIEN IN OÊ: Spoel versigtig met water vir etlike minute. Verwyder kontaklense indien aanwesig en maklik om te verwyder. Hou aan met spoel.
- INDIEN blootgestel of besorg: Kry onmiddellik mediese noodhulp. Moet NIE vomering induseer nie.

Was besoedelde klere daaglik.

Was met seep en koue water onmiddellik na gebruik of toevallige velkontak. In geval van oogkontak spoel onmiddellik met lopende water vir minstens 15 minute.

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

Verhoed besoedeling van voedsel, eetgerei, voer en drinkwater.

Verhoed wegdrywing van sproeinewel na ander gewasse, weidings, riviere, damme of ander gebiede wat nie

Maak alle apparaat deeglik skoon na gebruik en moenie die omgewing met spoelwater besoedel nie. Moenie vliegtuig kalibreer, of stortbak leegmaak oor weiding, onbehandelde gewasse of waterbronne nie. Sodra die houer leeg is keer dit om oor die spuitenk of mengbak en dreineer vir minstens 30 sekondes nadat die vloei tot 'n gedrup verminder het. Spoel die houer daarna driekeer uit met 'n volume water gelyk aan minstens 'n tiende van die houer en gooi die spoelwater by die inhoud van die spuitenk. Vernietig die houer deur dit te deurboor en plat te slaan en moenie vir enige ander doel hergebruik nie.

RELEVANTE STOWWE:

Component	Concentration (%)
Deltamethrin	10.5
2-Methylpropan-1-ol	>1.00 - <3.00
2,6-Di-tert-butyl-4-methylphenol	>0.10 - <0.25
Cyclohexanone	>1.00 - <40.00
Hydrocarbons, C9, aromatics	>20.00
Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts	>= 1.00 - <5.0

NOODHULPBEHANDELING:

Algemene advies: Verwyder besoedelde kiere onmiddellik en raak op 'n veilige wyse daarvan ontslae.

Inasemring: Beweeg die persoon na vars lug en hou hom/haar rustig. Bel 'n dokter of die gifbeheersentrum onmiddellik.

Vel kontak: In die geval van vel kontak, was onmiddellik vir ten minste 15 minute met baie seep en water. 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 velrome wat vitamien E bevat oorweeg word. Indien simptome voortduur, ontbied 'n geneesheer.

Oog kontak: Spoel onmiddellik met baie water, ook onder die ooglede, vir ten minste 15 minute. Verwyder kontaklense, indien teenwoordig, na die eerste 5 minute en spoel die oog dan verder. Warm water kan die subjektiewe erns van die irritasie / parestesie verhoog. Dit is nie 'n teken van sistemiese vergiftiging nie. Dien streldende oogdruppels toe en indien nodig verdowende oogdruppels. Kry mediese hulp indien irritasie ontwikkel en voortduur.

Ingesluk: Hou die persoon rustig. Spoel mond. MOENIE braking veroorsaak nie. Risiko van die produk wat in die longe beland met braking na inname. Bel 'n dokter of gifbeheersentrum onmiddellik.

NOTAS AAN DIE GENEESHEER:

Simptome:

Loaal: Vel en oog parestesie wat ernstig mag wees (gewoonlik verbygaande binne 24 uur met 'n resolusie), vel, oog en slymvlies irritasie, hoës, nies.

Sistemies: Ongemak in die bors, tagikardie, hipotensie, naarheid, maagpyn, diarree, braking, duiseligheid, dowwe visie, hoofpyn, anoreksie, slaperigheid, bewusteloosheid, stuiptrekkings, bewing, uitputting, lugweg hiper reaksie, pulmonêre edeem, hartkloppings, spier fassikulasie, apatie.

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

Behandeling:

Lokale behandeling: Aanvanklike behandeling: simptome.

Sistemiese behandeling: Aanvanklike behandeling: simptome.

Monitor: respiratoriese en kardiaale funksies. In die geval van inname moet 'n maagspoeling oorweeg word in gevalle van beduidende innames slegs binne die eerste 2 uur. Maar, die toediening van geaktiveerde houtskool en natriumsulfaat is altyd raadsaam.

Hou asemhalingskanaal oop.

Suurstof of kunsmatige asemhaling indien nodig.

In die geval van stuiptrekkings moet bensodiasiepiene (bv. diasepam) gegee word volgens standaard voorskrif. As dit nie doeltreffend is, kan phenobarbital gebruik word.

Kontra indikasie: atropien.

Kontra indikasie: byprodukte van adrenalen.

Daar is geen spesifieke teenmiddel nie.

Herstel is spontaan sonder gevolge.

WEERSTANDSWAARSKUWING:

Vir weerstandsbestuur is **Decis Forte** as 'n Groepkode 3 insekdoder geklassifiseer. Enige populasie van 'n spesifieke insek mag individue insluit wat 'n natuurlike weerstand teen **Decis Forte**, of enige ander Groepkode 3 insekdoder het. Indien hierdie insekdoders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die insekpopulasie oorheers. Hierdie weerstandbiedende insekte sal moontlik nie deur **Decis Forte** of enige ander Groepkode 3 insekdoder, beheer word nie.

Aangesien die voorkoms van weerstandbiedende insekte moeilik is om te bepaal voor insekdodertoeiening plaasvind, is dit uiters noodsaaklik dat behandelde gebiede met gereelde intervalle ondersoek word om weerstand vroegtydig te identifiseer. Bayer (Edms) Bpk. sal nie verantwoordelikheid aanvaar vir enige gebrek aan prestasie in die geval van die opbou van weerstand in die insekte as gevolg van onvoldoende insekbestandheidsbestuur soos aangedui op die etiket 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 insekdodergroepkodes.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in insekbeheerprogramme.

Kodlingmot weerstandsbestuur

Wanneer gebruik word om Kodlingmot (*Cydia pomonella*) in steenvrugte te beheer, moet 'n maksimum van vier Decis Forte bespuitings toegedien word op een enkel Kodlingmot generasie.

Om die ontwikkeling van weerstand te verhoed of te vertraag, is dit raadsaam om produkte met 'n ander metode van werking te gebruik vir die beheer van die ander twee generasies. Indien Decis Forte gebruik is vir die beheer van die laaste generasie van die seisoen, moet 'n produk met 'n ander metode van werking gebruik word vir die beheer van die eerste generasie in die volgende seisoen.

Amerikaanse bolwurm weerstandsbestuur

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

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

MOENIE meer as twee toedienings van enige piretroïed per groeiseisoen toedien nie. Indien meer toedienings benodig word, gebruik 'n produk met 'n ander werkingsmetode.

ALGEMEEN: Indien 'n piretroïedbespuiting swak beheer gee, MOENIE met 'n sintetiese piretroïed, selfs teen 'n korrektiewe dosis, herspuit nie. Gebruik 'n produk met 'n ander werkingsmetode (van 'n ander Groepkode).

Vir spesifieke inligting oor weerstandsbestuur, kontak u naaste Bayer CropScience verteenwoordiger.

GEBRUIKSAANWYSINGS: GEBRUIK SLEGS SOOS AANGEDUI

VERENIGBAARHEID:

Decis Forte is verenigbaar met **Lebaycid 500 EC** (Reg. Nr. L1270), **Mesuroil 80 WP** (Reg. Nr. L1896), **Solubor, Ultracide** (Reg. Nr. L2630) op appels en pere en **Antracol 70 WP** (Reg. Nr. L2065) op tamaties. Wanneer toegedien vir snywurmbeheer is **Decis Forte** verenigbaar met emulgeerbare- en suspensie konsentraat formulasies van onkruidodders wat tot die chloorasetamied- en triasiengroepe behoort. Uitvlokking kom somtyds voor wanneer mengsels gemaak word met onkruidodders wat as benatbare poeiers geformuleer is. Aangesien die formulasies van plaagbeheermiddels verander, kan Bayer (Edms) Bpk nie verantwoordelikheid aanvaar om gedurig **Decis Forte** in die spuittenk met ander chemikalieë te toets nie. Moenie **Decis Forte** met ander chemikalieë vermeng, tensy die gebruik vooraf getoet het dat die kombinasie fisies verenigbaar is en nie skadelik vir gebruik onder normale toestande is nie.

WATER KWALITEIT:

Water pH

Water met 'n uitermatige hoë / lae pH kan die effektiwiteit van **Decis Forte** nadelig beïnvloed. Vir die beste resultate moet die water tussen pH 5 en 8 wees. Indien die water pH nie hieraan voldoen nie, moet dit met 'n geskikte buffermiddel reggestel word.

Toediening deur 'n besproeiingsstelsel

In die geval van toediening deur 'n besproeiingsstelsel, moet die water wat gebruik word so skoon as moontlik wees, d.w.s. vry van silt, klei en organiese materiaal-deeltjies wat normaalweg in die vloedwater van 'n rivier voorkom. Sintetiese piretroides neig om aan hierdie deeltjies vas te kleef en sodoende hulle effektiwiteit te verlaag.

REÛNAS EIENSKAPPE:

Decis Forte het uitstekende reënvas eienskappe, maar moenie toedien wanneer blare nat is nie.

TOEDIENINGSMETODE:

GRONDTOEDIENING:

Ongeag 'n newelblaser of spuitbalk en spuitpunte gebruik word, die dosis/ha bly onveranderd. Spuite moet korrek gekalibreer word om die benodigde hoeveelheid spuitmengsel eweredig oor die teikenarea te versprei. Die hoeveelheid water wat vir goeie bedekking benodig word, mag verskil van apparaat tot apparaat. Die hoeveelheid spuitmengsel/ha sal afhang van die hoeveelheid wat benodig word om goeie benutting met die spesifieke apparaat te verkry. Gebruik voldoende water om deeglike bedekking te verseker.

Toediening op mielies vir Chilo en mieliestronkboorder beheer

Dien toe deur gebruik te maak van soliede keëlsputpunte (D4/35 of D5/35), twee gemonteer bokant elke ry. Rig een spuitpunt afwaarts en die tweede effens vorentoe, sodat direk in die kelke en aangrensende blare gespuut kan word. Gebruik 'n druk van nie meer as 3 bar (40 pvd) nie.

SPILPUNTTOEDIENING EN SPRINKELBESPROEING – SLEGS MIELIES

Die stelsel moet 'n funksionele stopklep, 'n vakuumverligtingsklep en 'n laedrukafoer bevat wat op die besproeiingspyp gemonteer is, om te verhoed dat waterbronbesoedeling deur middel van terugvloei plaasvind.

Die inlaattyp vir die plaagdoder moet 'n funksionele outomatiese, vinnigsluitende klep hê om die terugvloei van vloeistof na die inspuitspuit te verhoed. 'n Normaalweg toe solenoïed-beheerde klep gemonteer op die inlaat van die inspuitspuit sal verhoed dat plaagdoder onttrek word uit die voorsieningstank wanneer die stelsel outomaties of per hand afgeskakel word. Die inspuitspuit moet outomaties afgeskakel word wanneer die waterpomp afskakel. Die besproeiingslyn of waterpomp moet 'n funksionele druk-beheerde skakelaar hê wat die waterpomp sal afskakel indien die waterdruk verlaag tot 'n vlak waar die plaagdoder se verspreiding ondoeltreffend sal wees. Die stelsel moet toegerus wees met 'n positiewe-verplasinginspuitspuit (bv. diafragma pomp) wat ontwerp en gebou is om plaagdoders te kan toedien.

Toediening wanneer wind wegdrywing vanaf die teiken kan veroorsaak, moet vermy word. Die chemiese inspuitingstank moet skoonmaak word voor toediening om alle kunsmis, plaagdoder en ander reste te verwyder. Die **Decis Forte** / watermengsel in die inspuittenk moet deurgans geer word. 'n Eweredige vloei moet verseker word en pype moet vry van lekplekke wees. Verseker dat geen opdamming van water op die grondoppervlak voorkom nie.

LUGTOEDIENING:

MOENIE LUGBESPUITING BEGIN VOORDAT U U **DECIS FORTE** VERTEENWOORDIGER GESPREK HET NIE.

Lugtoediening mag slegs deur 'n geregistreerde lugbespuitingsoperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van STANSA Kode 0118 (Aerial Application of Agricultural Pesticides) gedoen word. Dit is belangrik om te verseker dat die spuitmengsel eweredig oor die teikenarea versprei word en dat die verlies aan spuitmengsel tydens toediening tot 'n minimum beperk word. Dit is dus belangrik om aan die volgende kriteria te voldoen:

Toerusting:

- Gebruik geskikte atomiseringsapparaat (hidroliese of roterende spuitkoppe) wat die vereiste druppelgrootte en bedekking sal produseer, maar wat die minste verlies van produk deur wegdrywing sal verseker.
- Die operateur moet 'n stelsel gebruik wat 'n druppelspektrum met die kleinste moontlike relatiewe span sal produseer.
- Al die spuitneuse/atomiseerders moet in die binneste 75 % van die vlerkspan geplaas word om die beweging van druppels in die vlerkvorteks in te verhoed.

Toedieningsparameters:

- 'n Minimum volume van 30 ℓ spuitmengsel per hektaar word aanbeveel. Aangesien hierdie produk nie teen 'n verlaagde volume getoets is nie, kan die registrasiehouer nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige nadelige effek indien hierdie produk teen 'n laer volume as hierbo aanbeveel, uit die lug toegedien word nie.
- 'n Druppelbedekking van 30-40 druppels per cm² moet op die teikenarea herwin word.
- n Druppelspektrum met 'n VMD van 250-280 mikron word aanbeveel. Verseker dat die produksie van fyn druppels (kleiner as 150 mikron) tot 'n minimum beperk word.
- Die hoogte van die spuitbalk moet op 3-4 meter bo die teiken gehandhaaf word. Moenie spuit wanneer die vliegtuig aan die bopunt is van, of tydens 'n duik, of terwyl dit uitklim of draai nie.
- Dien toe voordat die gewas te ruig word wat sal verhoed dat plante behoorlik bedek word.

Meteorologiese toestande:

- Die verskil tussen die nat- en droëbollesing, soos met 'n swaaihiogrometer bepaal, moet nie 8°C oorskry nie.
- Moenie toedien tydens turbulente, onstabiele toestande gedurende die hitte van die dag wanneer styg en dalende konvekse windbeweging plaasvind nie.
- Moenie toedien onder temperatuur inversie toestande (deur bo of binne die inversielaag te spuit) nie.
- Moenie spuit indien die windspeed 15 km/uur oorskry nie.

Algemeen:

- Sorg dat die lande akkuraat gemerk is en die spuitoperateur presies weet watter lande gespuut moet word.
- Verky 'n versekering van die spuitoperateur dat aan die bogenoemde vereistes voldoen sal word.

GEWAS EN PLAE	DOSIS	OPMERKINGS
ALLE GEWASSE Snywurms	<u>Grondtoediening:</u> 40 mℓ/ha	Dien voor- en/of vroeg naopkom toe. <u>Algehele behandeling:</u> Dien toe in ongeveer 300 ℓ water/ha. <u>Strookbehandeling:</u> Dien toe in 'n strook van minstens 30 cm wyd oor die ry. 'n Dosis van 40 mℓ in ongeveer 300 ℓ water moet toegedien word per <u>behandelde</u> ha, bv., indien 'n strook van 45 cm wyd gespuit word oor rye wat 90 cm van mekaar geplant is, moet 20 mℓ Decis Forte per <u>geplante</u> ha toegedien word.
	<u>Lugtoediening:</u> 40 mℓ/ha	Dien toe in minstens 30 ℓ water/ha. Verwys na "LUGTOEDIENING".
NOTAS: Grond moet fynbewerk en vry van kluite en oormatige plantreste wees. Indien die gewas alreeds opgekom het, begin toediening sodra plante skade toon Die grondoppervlak moet klam wees tot 'n diepte van 5 cm tydens toediening OF Wanneer op droë grond toegedien word, moet reën of besproeiing grond binne 3 dae na toediening tot 'n diepte van minstens 5 cm benat. Minimum bewerkingspraktyke lei gewoonlik tot hoë snywurmpopulasies en in sulke gevalle word 'n algehele toediening aanbeveel. Die populasies moet sorgvuldig gemonitor word want 'n opvolgbehandeling mag benodig word. Ernstige gewasskade moet verwag word in gewasse wat direk na oorwinterde gewasse geplant is of in lande wat noemenswaardige plantreste- of onkruidbedekking gehad het.		
AARTAPPELS Aartappelmot	<u>Grondtoediening:</u> (Hoë volume) 45 - 75 mℓ/ha	Begin toedien vóór, of tydens die eerste tekens van aartappelmotbesmetting. Herhaal met 8 - 14 dae tussenpose. 'n Dosis van 45 mℓ/ha is voldoende om goeie insekbeheer te verkry vir die tydperk tussen 0 en 40 dae na opkom. Dien 60 mℓ/ha toe vanaf 41 - 70 dae na opkom en 75 mℓ/ha vanaf dag 71 en daarna. Meer as een toediening word vir effektiewe beheer benodig. Erd minstens tweekeer gedurende die groeiseisoen op. Hierdie toediening sal ook snywurms beheer.
	<u>Grondtoediening:</u> (Lae volume) 45 - 75 mℓ/ha	Dien toe soos hierbo in $\frac{1}{2}$ - $\frac{1}{8}$ van die volume water wat vir hoë volume toediening gebruik word.

GEWAS EN PLAE	DOSIS	OPMERKINGS
APPELS & PERE Kodlingmot	<u>Hoë volume toediening:</u> 2,5 mℓ/100 ℓ water (62,5 - 87,5 mℓ/ha)	LW: Sien waarskuwing teen bestandheid van Kodlingmot onder "WEERSTANDSWAARSKUWING" . Begin toedien met die aanvang van 'n motgenerasie of tydens 75 % blomblaarval (in die geval van die eerste generasie). Herhaal met 14-18 dae tussenpose vir 'n maksimum van vier toediënings. Dien 2 500 - 3 500 ℓ spuitmengsel per hektaar toe as 'n voldekbepuiting. Deeglike bedekking is belangrik.
	<u>Lae volume toediening:</u> 62,5 - 87,5 mℓ/ha	Dien toe soos hierbo in $\frac{1}{4}$ - $\frac{1}{8}$ van die volume water benodig vir hoë volume toediening.
Amerikaanse bolwurm	<u>Hoë volume toediening:</u> 3 mℓ/100 ℓ (75 - 105 mℓ/ha)	LW: Sien waarskuwing teen bestandheid van Amerikaanse bolwurm onder "WEERSTANDSWAARSKUWING" . Dien 'n voldekbepuiting toe tydens 75 % blomblaarval. Vir die beste resultate moet larwes nie 10 mm in lengte oorskry nie. Amerikaanse bolwurm sal ook deur kalandertoediënings beheer word.
	<u>Lae volume toediening:</u> 75 - 105 mℓ/ha	Dien toe soos hierbo in $\frac{1}{4}$ - $\frac{1}{8}$ van die volume water benodig vir hoë volume toediening.
Gebande vrugtekalandar	<u>Hoë volume toediening:</u> 6 mℓ/100 ℓ water (150 - 210 mℓ/ha)	Dien 2 500 - 3 500 ℓ spuitmengsel per hektaar as 'n voldekbepuiting toe tydens 75 % blomblaarval. Verseker deeglike benatting van veral stam- en raamtakke. Herhaal 3 - 4 weke later. Herhaal toediening gedurende middel Januarie indien nodig. (Die tussenpose tussen 'n <u>kalanderbepuiting</u> en die daaropvolgende <u>kodlingmotbepuiting</u> , kan verleng word tot 28 dae).
Antestia	<u>Hoë volume toediening:</u> 3 mℓ/100 ℓ water (75 - 105 mℓ/ha)	Dien toe as 'n medium-dekbepuiting deur blomtrosse en blare te benat. Antestia sal ook deur Kodlingmot- en kalandertoediënings beheer word.
NOTA: Die hoeveelheid spuitmengsel per hektaar sal afhang van die boomgrootte en blaarbedekking. Bloubesie: Skade is onwaarskynlik indien vroeë Kodlingmot, Amerikaanse bolwurm of Gebande vrugtekalandar-bespuittings toegedien is.		

GEWAS EN PLAE	DOSIS	OPMERKINGS
BLAARSLAAI Amerikaanse bolwurm & Snywurms wat koppe aanval	<u>Grondtoediening:</u> 60 ml/ha	LW: Sien waarskuwing teen bestandheid van Amerikaanse bolwurm onder "WEERSTANDSWAARSKUWING" . Dien toe sodra plae opgemerk word. Herhaal indien nodig.
BONE, GRONDBONE, ERTJIES Amerikaanse bolwurm	<u>Grondtoediening:</u> 60 ml / ha <u>Lugtoediening:</u> 60 ml / ha	LW: Sien waarskuwing teen bestandheid van Amerikaanse bolwurm onder "WEERSTANDSWAARSKUWING" . Verken lande weekliks vanaf blomtyd. Gebruik 'n monstergrootte van 25 plante per 15 ha (2 plante/ha). Begin toedien sodra 10 % van die plante besmet is. Vir die beste resultate moet larwes nie 10 mm in lengte oorskry nie. Dien toe in 200 - 500 ℓ water/ha. Dien toe in minstens 30 ℓ water/ha. Verwys na "LUGTOEDIENING".
DRIUWE Kalanders	<u>Hoë volume toediening:</u> 6 ml/100 ℓ water	Dien toe as 'n voldekbespuiting. Verseker deeglike benutting van die stam asook die res van die stok. Begin toedien gedurende middel Oktober en herhaal indien nodig.
Amerikaanse bolwurm	<u>Hoë volume toediening:</u> 3 ml/100 ℓ water	LW: Sien waarskuwing teen bestandheid van Amerikaanse bolwurm onder "WEERSTANDSWAARSKUWING" . Dien 'n medium-dekbespuiting toe deur die blare en trosse te benat. Vir die beste resultate moet larwes nie 10 mm in lengte oorskry nie. Begin toedien sodra eerste tekens van besmetting opgemerk word. Herhaal indien nodig.

GEWAS EN PLAE	DOSIS	OPMERKINGS
GRAANSORGHUM Amerikaanse bolwurm	<u>Grondtoediening:</u> 0,6 ml/3 ℓ water / 100 m ry <u>Lugtoediening:</u> 60 ml /ha	LW: Sien waarskuwing teen bestandheid van Amerikaanse bolwurm onder "WEERSTANDSWAARSKUWING" . Die beheerstrategie moet gebaseer word op weeklikse verkenning van 25 pluime per 15 ha, vanaf pluimverskyning totdat die graan hard is. Dien toe sodra die aantal larwes 12 per 25 pluime (vir 'n beraamde opbrengs van 4 ton/ha), of 25 per 25 pluime (vir 'n beraamde opbrengs van 2 ton/ha) bereik het. Vir die beste resultate moet larwes nie 10 mm in lengte oorskry nie en die graan moenie verby die harde-deegstadium wees nie. Dien toe in 'n strook van minstens 50 cm wyd oor die ry gerig na die pluime. D5/45 holkeëlsputpunte word aanbeveel. Dien toe in minstens 30 ℓ water/ha. Verwys na "LUGTOEDIENING". Waar kultivars teëgekom word wat digte stywe are vorm, is dit wenslik om toe te dien voordat die are toemaak, d.w.s. vóór die korrels heeltemal opgevol het.
HOPS Amerikaanse bolwurm	<u>Hoë volume toediening:</u> 5 ml/100 ℓ water	Slegs lede van die Suid-Afrikaanse Hopskwekersvereniging wat 'n vrywaringsvorm met Bayer (Edms) Bpk geteken het, mag Decis Forte op hops gebruik LW: Sien waarskuwing teen bestandheid van Amerikaanse bolwurm onder "WEERSTANDSWAARSKUWING" . Dien toe as 'n voldekbespuiting tydens eerste tekens van besmetting en verseker goeie bedekking van groeipunte en keëls.

GEWAS EN PLAË	DOSIS	OPMERKINGS
KATOEN Bolwurms & Vlekbesies (Sien besonderhede hieronder)		Ten einde in te skakel met die beginsels van geïntegreerde plaagbestuur, moet Decis Forte slegs gebruik word gedurende die maande van Januarie en Februarie. Toedieningshoeveelhede word gebaseer op plante wat hoër is as 0,6 m. Die beheerstrategie moet gebaseer word op weeklikse verkenning van 24 plante per 15 ha. Sien drumpelwaardes hieronder.
Amerikaanse bolwurm		LW: Sien waarskuwing teen bestandheid van Amerikaanse bolwurm onder "WEERSTANDSWAARSKUWING" . Vanaf 12-17 weke na plantopkom: Dien toe sodra die eiertelling een per 2 plante (12 per 24 plante) bereik of oorskry het, of die aantal klein larwes 5 per 24 plante bereik het. Vanaf die 18de week en daarna, op voorwaarde dat die plantgroei tempo betekenisvol afgeneem het, kan Decis Forte toegedien word met 14-dae tussenpose, of wanneer die aantal klein larwes 5 per 24 plante oorskry het, afhangende wat eerste is.
Rooibolwurm		Dien toe sodra die eiertelling 1 per 4 plante (6 per 24 plante) bereik of oorskry het.
Stekelrige bolwurm		Dien toe sodra die larwe telling 4 per 24 plante bereik of oorskry het.
Vlekbesies		Dien toe sodra die eerste vlekbesiekolonies opgemerk word.

GEWAS EN PLAË	DOSIS	OPMERKINGS
KATOEN Bolwurms & Vlekbesies (Sien besonderhede hierbo)	<u>Grondtoediening:</u> Newelblasers, spuitbalk spuite, ens. Eweredig gespasieërde rye 60 mℓ / ha "Treinspoor" rye (bv. 1 m + 3m ry- spasieëring). 0,6 mℓ/ 100 m rylengte <u>Lugtoediening:</u> 75 mℓ / ha	Dien voldoende spuitmengsel toe om deeglike bedekking van die plante te verseker. 1 m/3 m treinspoor spasieëring = 5 000 lopende m/ha. Dien voldoende spuitmengsel toe vir deeglike bedekking. Monteer minstens 5 geskikte holkeëlspuitpunte, waarvan een spuitpunt direk bo-oor elke ry, een in die middel van die twee rye en een aan elke buitekant van die rye gerig is. Vir die beste bedekking moet die buitenste spuitpunte op valarms gemonteer word teen 'n 45° opwaartse hoek. Dien toe in minstens 30 ℓ water/ ha. Verwys na "LUGTOEDIENING".
KORING Amerikaanse bolwurm	<u>Lugtoediening:</u> 60 mℓ / ha	LW: Sien waarskuwing teen bestandheid van Amerikaanse bolwurm onder "WEERSTANDSWAARSKUWING" . Vir die beste resultate moet larwes nie 5 mm in lengte oorskry nie. Begin toedien sodra 10 % van die koringare besmet is. Herverken met 7-dae tussenpose. Dien toe in minstens 30 ℓ water/ha. Verwys na "LUGTOEDIENING".
LUPIENE Amerikaanse bolwurm	<u>Lugtoediening:</u> 50 mℓ/ha	LW: Sien waarskuwing teen bestandheid van Amerikaanse bolwurm onder "WEERSTANDSWAARSKUWING" . Verken lande weekliks vanaf blomknopvorming en gebruik 'n monstergrootte van 25 plante per 15 ha. Begin toedien sodra 10 % van die plante besmet is. Vir die beste resultate moet larwes nie 10 mm in lengte oorskry nie. Dien toe in minstens 30 ℓ water/ha. Verwys na "LUGTOEDIENING".

GEWAS EN PLAE	DOSIS	OPMERKINGS
LUSERN Lusernrusper	<u>Grondtoediening:</u> 18 mℓ/ha	Dien toe in ongeveer 300 ℓ water/ha. Dien toe voordat die plaag noemenswaardige blaaroppervlakte verwyder het. Herhaal indien nodig.
MANGO'S Mangosnuitkewer	<u>Hoë volume toediening:</u> 10 mℓ/100 ℓ water	Dien toe as 'n medium-dekbespuiting sodra ruggies 1 cm in deursnee (September) is, gevolg deur 'n tweede bespuiting 4 tot 5 weke later wanneer die vruggies 3 tot 4 cm in deursnee is.
NOTA: Die gebruik van hierdie produk mag 'n verhoging in Mango-dopluisgetalle tot gevolg hê		
MIELIES Chilo stronkboorder (<i>Chilo partellus</i>) Chilo stronkboorder word van Mieliestronkboorder onderskei deurdat Chilo stronkboorder dorsale donkerbruin kolle het en romerige-wit van kleur is. Mieliestronkboorder larwes is donkerder en sonder kolle.	<u>Grondtoediening:</u> 0,6 mℓ Decis Forte / 100 m rylengte	Hierdie spuitprogram sal Chilo stronkboorder tot by pluimvorming beheer. Die beheer van Chilo stronkboorder word drasties verminder indien die eerste bespuiting later as 21 dae na gewas-opkom, toegedien word. Die eerste "haelskade" kan reeds vanaf 10 dae na opkom opgemerk word. Toediening moet 10 - 14 dae na gewasopkom begin, of vir toediening gedurende koeler tye van die jaar, vanaf die 2 tot 4-blaarstadium. Herhaal toediening tot pluimvorming met 14-dae tussenpose soos benodig. Verwys na "GRONDTOEDIENING" hierbo. Dien toe in 3 ℓ water / 100 m rylengte. Herhaal toediening met 7 - 10 dae tussenpose soos benodig tot pluimvorming. Sien "NOTAS" hieronder. Dien toe in 3 ℓ water / 100 m ry. Herhaal toediening met 14-dae tussenpose soos benodig tot pluimvorming. Sien "NOTAS" hieronder.

GEWAS EN PLAE	DOSIS	OPMERKINGS
MIELIES Chilo stronkboorder (<i>Chilo partellus</i>) Chilo stronkboorder word van Mieliestronkboorder onderskei deurdat Chilo stronkboorder dorsale donkerbruin kolle het en romerige-wit van kleur is. Mieliestronkboorder larwes is donkerder en sonder kolle.	<u>Toediening d.m.v. Spilpunt-of sprinkelbesproeiing:</u> 60 mℓ/ha	Toediening moet slegs begin sodra die plante die 6-blaarstadium bereik het. Toediening vóór hierdie stadium moet deur middel van grondtoediening plaasvind. Herhaal toediening met 7-10 dae tussenpose tot pluimvorming. Sien "NOTAS" hieronder. LW: Spilpuntspoed moet op 100 % gestel word (d.w.s. die vinnigste omwenteling). In die geval van gewone sprinkelbesproeiing moet die produk gedurende die laaste 10-15 minute van die besproeiings-siklus toegedien word voordat die pype na die volgende posisie geskuif word. Verwys na "SPILPUNTTOEDIENING".
NOTAS: Swak stronkboorderbeheer sal verkry word indien mielieplante bespuit word wat aan droogtestremming ly met verlepte óf opgerolde blare.		
Mieliestronkboorder (<i>Busseola fusca</i>) Mieliestronkboorder larwes is donkerder as dié van Chilo stronkboorder en sonder kolle. Beheer van blaar-en stingelskade	<u>Grondtoediening:</u> 0,5 mℓ / 100 m ry <u>Lugtoediening:</u> 50 mℓ /ha	LW: Waar besmetting moontlik is, moet verkennings weekliks gedoen word vanaf 21-dae na opkom totdat die plante pluime vorm. Begin toedien een week nadat 5 % van die plante eiers op het, of onmiddellik nadat 10 % van die plante tekens van "haelskade" toon (wanneer die jongste blare van die plant klein deursigtige kolle "vensters" aandui). Vir die beste resultate moet larwes nie 5 mm in lengte oorskry nie. Groot, goed gevestigde larwes word swak beheer. Hou lande onder toesig ingeval 'n herinfestasië voorkom. Dit mag nodig wees om 'n tweede toediening 12 - 14 dae later toe te dien. Verwys na "GRONDTOEDIENING" hierbo. Sien "NOTA" hieronder. Dien toe in minstens 30 ℓ water/ha. Slegs vir gebruik in ooreenstemming met Biotrap. Verwys na Biotrap Maize Stalk Borer (Reg. Nr. L2982) aanbevelings. Verwys na "LUGTOEDIENING".
NOTA: Swak stronkboorderbeheer sal verkry word indien mielieplante bespuit word wat aan droogtestremming ly en wat verlepte óf opgerolde blare toon		

GEWAS EN PLAË	DOSIS	OPMERKINGS
MIELIES Mieliestronkboorder Beheer van kopskade gedurende Januarie - Februarie Generasie	<u>Lugtoediening:</u> 60 mℓ /ha	LW: Met hierdie toediening word kopskade betekenisvol verlaag, alhoewel Mieliestronkboorder nie volledig uitgewis word nie. Raadpleeg die Biotrap-data om week 3 van die 2de motvlug te bepaal. Indien die gewas nog nie vol in pluim is nie, bespuit gedurende die 4de week. Indien die gewas volpluim bereik het is skade laag want koppe is dan goed ontwikkel en larwes klein. Indien plante nog in die kelkstadium is, verwys na "Beheer van blaar- en stingelskade" hierbo. Verwys na "LUGTOEDIENING".
Lentekewer	<u>Lugtoediening:</u> 150 mℓ /ha	Dien toe sodra skade aan die blare opgemerk word. Herhaal na 14 dae indien groot aantal kewers nog aan die uitbroei is. (Ondersoek gate in die grond rondom die stam asook kelkblare van die plante). Kewers moet eers behandelde blaarmateriaal vreet om beheer te word. Verwys na "LUGTOEDIENING".

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.

MIELIES & SUIKERMIELIES Amerikaanse bolwurm (Kopwurm)	<u>Lugtoediening:</u> 60 mℓ /ha	LW: Sien waarskuwing teen bestandheid van Amerikaanse bolwurm onder "WEERSTANDSWAARSKUWING" . Dien toe in minstens 30 ℓ water/ha. Verken vir eiers met die aanvang van baardverskyning. Dien toe indien eiers voorkom. Verken daarna weekliks en dien weer toe indien nodig. Verseker deeglike bedekking van die boonste derde van die plante. Verwys na "LUGTOEDIENING".
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NOTA:

Langseisoen of laatgeplante mieliekultivars is gewoonlik dié wat aan skade onderhewig is, want dit is hulle wat jong koppe het gedurende die piektyd van Amerikaanse bolwurmmarktiwiteit. Koppe wat aan die hardword is, word nie noemenswaardig beskadig nie, selfs nie deur groter larwepopulasies wat in elk geval nie dieper as die punte van die koppe kan penetreer nie. Dit is belangrik dat jong baarde nie erg beskadig word nie, want dit verhinder bestuiwing van die graan.

GEWAS EN PLAË	DOSIS	OPMERKINGS
MIELIES, SORGHUM, KORING, GRASWEIDINGS Kommandowurm	<u>Grondtoediening:</u> 60 mℓ /ha	Dien toe wanneer beskadiging aan gewasse en beweiding verwag word, verkieslik wanneer dit blyk dat al die larwes reeds uitgebroei het. Alle larwale stadiums sal beheer word.

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.

PAPRIKA Amerikaanse bolwurm	<u>Grondtoediening:</u> 60 mℓ /ha	LW: Sien waarskuwing teen bestandheid van Amerikaanse bolwurm onder "WEERSTANDSWAARSKUWING" . Dien toe tydens die eerste tekens van bolwurmbesmetting. Gebruik voldoende water om deeglike bedekking en benatting van blomme en vrugte te verseker.
PATATS Patatkewers, Pylstermot larwes, Blaarmyners	<u>Grondtoediening:</u> 12,5 mℓ/100 ℓ water	Begin toedien verkieslik vóór blaarbeskadiging opgemerk word óf tydens die eerste tekens daarvan. Herhaal met 14-dae tussenpose. Gebruik skoon plantmateriaal. Verseker dat patats weer opgeërd word om grondkrake toe te maak.
PERSKES, NEKTARIENS, PRUIE Gebande vrugtekalanders	<u>Hoë volume toediening:</u> 6 mℓ/100 ℓ water (150 - 210 mℓ/ha)	Dien 2 500 - 3 500 ℓ spuitmengsel/ha toe as 'n voldekbepuiting. Verseker deeglike benatting van stam en raamtakke. Dien toe sodra eerste tekens van besmetting opgemerk word (gewoonlik ± middel November - einde Desember) en herhaal 3 - 4 weke later. Herhaal weer gedurende middel Januarie indien nodig.
Amerikaanse bolwurm	<u>Hoë volume toediening:</u> 3 mℓ/100 ℓ water (75 - 105 mℓ/ha)	LW: Sien waarskuwing teen bestandheid van Amerikaanse bolwurm onder "WEERSTANDSWAARSKUWING" . Dien 2 500 - 3 500 ℓ spuitmengsel/ha toe as 'n voldekbepuiting. Begin toedien tydens 75 % blomblaarval. Herhaal 18-21 dae later indien nodig.
	<u>Lae volume toediening:</u> (75 - 105 mℓ/ha)	Dien toe soos hierbo in $\frac{1}{4}$ - $\frac{1}{6}$ van die volume water benodig vir hoë volume toediening.

GEWAS EN PLAE	DOSIS	OPMERKINGS
SIERPLANTE Amerikaanse bolwurm	<u>Hoë volume toediening:</u> 3 mℓ/100 ℓ water	LW: Sien waarskuwing teen bestandheid van Amerikaanse bolwurm onder "WEERSTANDSWAARSKUWING" . Dien toe sodra bolwurms opgemerk word. Dien voldoende spuitmengsel toe om goeie bedekking te verseker. Herhaal indien nodig.
TAMATIES Amerikaanse bolwurm	<u>Hoë volume toediening:</u> 3,25 mℓ/100 ℓ water (2 ℓ spuitmengsel/ 10 cm planthoogte / 100 m rylengte) <u>Lae volume toediening:</u> 0,065 mℓ / 10 cm planthoogte/100 m rylengte	LW: Sien waarskuwing teen bestandheid van Amerikaanse bolwurm onder "WEERSTANDSWAARSKUWING" . Dien toe sodra die plante begin blom óf wanneer bolwurms verwag word. Vir die beste resultate moet larwes nie 10 mm in lengte oorskry nie. Herhaal met 7-10 dae tussenpose. Dien toe as 'n voldekbepuiting. Vir dosis/ha sien berekening hieronder. Gebruik voldoende water vir goeie bedekking. Vir dosis/ha sien berekening hieronder.

Dosis/ha:
Bereken dosis/ha deur die volgende formules te gebruik:-

HOë VOLUME TOEDIENING:

$$\frac{(\text{Totale lengte van rye/ha}) \times (\text{Hoogte van tamaties in cm} \times 2)}{100} = \text{Volume } (\ell) \text{ van mengsel/ha}$$

$$\text{en } \frac{(\text{Volume } (\ell) \text{ van mengsel/ha})}{100} \times 3,25 = \text{mℓ } \textbf{Decis Forte/ha}$$

LAE VOLUME TOEDIENING:

$$\frac{\text{Totale lengte van rye/ha}}{100} \times \frac{(\text{Hoogte van tamaties in cm})}{10} \times 0,065 = \text{mℓ } \textbf{Decis Forte/ha}$$

GEWAS EN PLAE	DOSIS	OPMERKINGS
TURKSVEE & KAALBLAD-TURKSVEE (Opuntia spp.) <i>Cactoblastis</i> larwes	<u>Hoë volume toediening:</u> 4 mℓ/100 ℓ water	Dien toe as 'n voldekbepuiting en verseker deeglike bedekking van blaie. Begin toedien sodra eerste tekens van besmetting opgemerk word, óf verkieslik sodra eierstokke gedeponeer word. 'n Enkel toediening sal plaag vir 14 dae beheer. Nuwe beskadiging mag tussen die 14de en 21ste dag vanaf toediening voorkom. Herhaal met 14 - 21 dae tussenpose indien nodig.
UIE Blaaspootjie	<u>Grondtoediening:</u> (Hoë volume) 10 mℓ/100 ℓ water plus 'n geskikte benatter teen die aanbevole dosis	Begin behandeling tydens eerste tekens van besmetting en herhaal met 10 - 14 dae tussenpose indien nodig. Gebruik 250 - 500 ℓ spuitmengsel/ha afhangende van plantgrootte.
	<u>Grondtoediening:</u> (Lae volume) 25 - 50 mℓ/ha	Gebruik die laer dosis op klein uie en die hoër dosis op groter uie.
NOTA: Moenie op spruitue toedien nie aangesien dit kan lei tot onaanvaarbare residu's op die gewas		
WATTELPLAN-TASIES Wattel mirid	<u>Lugtoediening:</u> 40 mℓ/ ha	Dien toe sodra eerste tekens van besmetting opgemerk word. 'n Tweede toediening mag ongeveer 'n maand na die 1ste toediening benodig word indien miridpopulasies weer opbou. Dien toe in minstens 30 ℓ water/ha. Verwys na "LUGTOEDIENING".

BAYER (EDMS) BPK ERKEN DIE VOLGENDE:

PRODUK :	HANDELSMERK VAN :
Biotrap®	Wefco Bemarking
Ultracide®	Syngenta Suid-Afrika (Edms) Bpk

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