

For further information see attached pamphlet
Vir verdere inligting sien aangehegte pamflet
Main Panel

CYPERIN 200 EC

Reg No./Nr. L5321, Act No./Wet Nr. 36 of/van 1947
Botswana Reg No. / Reg Nr. W130737
Malawi Reg. No. MW/PCB/2011/0363
Namibian Reg. No. N-AR 1201/ Namibiese Reg. Nr. N-AR 1201

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

'n Emulgeerbare konsentraat kontak- en maaginsekdoder vir die beheer van verskeie insekplae op gewasse soos aangedui.

INSECTICIDE GROUP CODE 3A INSEKDODERGROEPKODE

ACTIVE INGREDIENT:

Cypermethrin 200 g/l
(Pyrethroid)

AKTIEWE BESTANDDEEL:

Sipermetrien
(Piretroïed)

Net Volume

ℓ

Netto Volume



REGISTRATION HOLDER / REGISTRASIEHOUER:

Nulandis® (A division of AECI Limited)/ Nulandis® ('n Afdeling van AECI Beperk)

Reg. No. / Nr. 1924/002590/06

P.O. Box / Posbus 14418

Witfield, 1467

Tel : (011) 823 8000

IN CASE OF POISONING PLEASE PHONE / IN GEVAL VAN VERGIFTIGING SKAKEL (021) 931-6129

BATCH NO / LOTNOMMER:

DATE OF MANUFACTURE / DATUM VAN VERVAARDIGING:

UN NUMBER: 1268 - FLAMMABLE LIQUID, PETROLEUM PRODUCTS N.O.S



PAMPHLET

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HARMFUL

WARNINGS:

**ALLOW THE FOLLOWING WITHHOLDING PERIODS (MINIMUM NUMBER OF DAYS)
FROM LAST APPLICATION AND HARVESTING OR GRAZING;**

CROP	DAYS
PEACHES (CANNING)	3
BEANS ; GROUNDNUTS (HAY); PEAS	7
COTTON (GRAZING); SORGHUM; GRAPES (TABLE AND WINE)	28
CRUCIFERAE; TOMATOES	4
LUCERNE; MAIZE; PEACHES; SWEETCORN; APPLES; PEARS;	14
PLUMS; PASTURES	
MACADAMIAS	30

Handle with care. Poisonous if inhaled, swallowed or absorbed through the skin. May cause irritation to skin, eyes and respiratory system.

Toxic to fish, bees and wildlife.

Flammable – Do not store or spray near open flame. Keep out of reach of children and uninformed persons and animals.

Store in a cool dry place, away from food and feed.

If soil is dry, do not apply for cutworm control.

Re-entry: Do not enter treated area within 1 day after treatment unless wearing protective clothing.

In case of poisoning, CALL A DOCTOR AND MAKE THIS LABEL AVAILABLE TO HIM.

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

ALTHOUGH THIS REMEDY HAS BEEN EXTENSIVELY TESTED UNDER A LARGE VARIETY OF CONDITIONS THE REGISTRATION HOLDER DOES NOT WARRANT THAT IT WILL BE EFFICACIOUS UNDER ALL CONDITIONS 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:

Avoid inhalation, skin and eye contact, of the spray mist.

Wear protective clothing (faceshield, rubber gloves and boots) when handling the concentrate.

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

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

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

Prevent spray drift onto other crops, grazing, rivers, dams and areas not under treatment.

Clean applicator thoroughly with **FLUSHSOL** before re-using and dispose of wash water where it will not contaminate crops, grazing, rivers dams or boreholes. Refer to the **FLUSHSOL** label for directions of use.

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 rinsings to the contents of the spray tank. Destroy the container in the prescribed manner. Destroy empty container by perforation, flattening or burning. Do not re-use for any other purpose.

SYMPTOMS OF POISONING:

No known symptoms

FIRST AID TREATMENT:

Always obtain treatment by a doctor immediately.

If inhaled: Remove patient to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

If ingested: DO NOT INDUCE vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact: In case of contact, immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before re-use. Thoroughly clean shoes before re-use. Get medical attention.

Eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

NOTE TO PHYSICIAN:

No specific antidote – Treat symptomatically

RESISTANCE WARNING:

For resistance management, **Cyberin 200 EC** is a group code 3A insecticide. Any insect population may contain individuals naturally resistant to **Cyberin 200 EC** and other group code 3A insecticides. The resistant individuals dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **Cyberin 200 EC** or other group code 3A insecticides, although local experts should be consulted for local resistance recommendations. The following classification scheme is based on mode of action. It is recognized that resistance of insects and mites to insecticides and acaricides can also result from enhanced metabolism, reduced penetration or behavioural changes that are not linked to any site of action classification but are specific for individual chemicals or chemical groupings. Despite of this, alternation of compounds from different chemical classes remains a viable management technique. To delay insecticide resistance:

*Avoid exclusive repeated use of insecticides from the same chemical group code.

*Integrate other control methods (chemical, cultural, biological) into insect control programmes

For further information contact the registration holder of this product.

African bollworm resistance management:

Resistance of African 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. DO NOT apply more than two applications per growing season.

ALL OTHER CROPS: If a pyrethroid gives poor performance DO NOT re-spray with any synthetic pyrethroid, even at a corrective dosage rate. Use a product from a different chemical group code.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED

COMPATIBILITY:

Do not mix with seaweed extract or amitraz, chinomethionat, vamidothion, prothiophos. When spraying apples, pears and grapes a wetting agent should not be added to **Cyperin 200 EC**.

Cyperin 200 EC is compatible with most cotton miticides in common use. The compatibility of **Cyperin 200 EC** with other products may be influenced by the formulation of the products involved as well as the quality of the water. Since the formulation of other products may change and water quality may vary from farm to farm a physical compatibility test should always be carried out prior to application.

MIXING INSTRUCTIONS:

The addition of **Bladbuff 7** (Reg. No. L8121, Act No. 36 of 1947) or **Bladbuff 12** (Reg. No. L8201, Act No. 36 of 1947) to the spray water prior to adding **Cyperin 200 EC**, is recommended to prevent alkaline hydrolysis. Add **Bladbuff 7** or **Bladbuff 12** first to the spray water. For optimum stability, **Cyperin 200 EC** should be applied at a pH of 3-4.

Half fill the spray tank with clean water. Add the measured amount of **Cyperin 200 EC** to the tank while agitating. Fill the tank and maintain agitation until spraying is completed. Ensure thorough agitation during the filling of the spray tank and spraying. Prepared spray mixture must not be left in the spray tank for any length of time e.g., overnight.

GROUND APPLICATION:

When using a conventional high volume sprayer or a mist blower, fit equipment with hollow cone nozzles that provides medium to fine droplets. Ensure that sprayers are calibrated before spraying and that thorough coverage is obtained. An uniform distribution must be ensured throughout the target area. The use of drop arms on conventional booms are recommended when spraying crops such as cotton and tomatoes. Do not spray plants that are wet with dew or rain.

AERIAL APPLICATION:

Aerial application may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Pesticides). 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 60 to 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 (Volume Median Diameter) 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 / PEST	DOSAGE	REMARKS
ALL CROPS Cutworms	Ground Application: 100 ml/ha 0.33 ml/100 m plant row Aerial Application: 100 ml/ha	Apply treatment either pre or post emergence when pests are noticed. Ensure that the top 3 cm of the soil is moist. Repeat treatment in case of re-infestation. 1. Overall spray Apply in 300 ℓ water/ha. 2. Band spray (300 mm wide) Apply in at least 3 ℓ water/100m row. Apply in 30 ℓ water/ha.
APPLES & PEARS Codling moth, Leaf roller, African bollworm	5 ml/100 ℓ water High volume (125 – 175 ml/ha) Low volume (100 – 140 ml/ha)	NB: Refer to “Warning against African bollworm resistance” under “Resistance Warning” . Apply first spray at 75 % petal drop and repeat at 14 day intervals. Apply as a corrective treatment not earlier than 75 % petal drop. Use 2 500 – 3 500 ℓ spray mixture per ha. Caution: Toxic to bees.
Banded fruit weevil (Snout beetle)	10 ml/100 ℓ water High volume (250 – 350 ml/ha) Low volume (200 – 280 ml/ha)	High Volume Application Using 2 500 – 3 500 ℓ spray mixture per ha. Apply two sprays, the first at 75 % petal drop. Repeat 4 weeks later. Further, either a low or high volume spray can be applied during mid-January to prevent late season damage. Low Volume Application Using ¼ or 1/8 of spray volume indicated for high volume application.
BEANS African bollworm	150 ml/ha	NB: Refer to “Warning against African bollworm resistance” under “Resistance Warning” . <u>Ground Application:</u> Apply in 300 ℓ water. Inspect lands regularly and if necessary repeat application. Apply as soon as eggs or larvae are noticed <u>Aerial Application:</u> Apply in 30 ℓ water/ha.

CROP / PEST	DOSAGE	REMARKS
GROUNDNUTS African bollworm	150 ml/ha	NB: Refer to “Warning against African bollworm resistance” under “Resistance Warning” . <u>Ground Application:</u> Apply in 250 ℓ water/ha. <u>Aerial Application:</u> Apply in 30 ℓ water/ha. Commence spraying as soon as eggs or larvae are noticed. Repeat if necessary.
LUCERNE Lucerne caterpillar	Ground Application: 75 ml/ha	Apply as full cover spray in 300 ℓ water/ha as soon as pest is noticed. Good coverage and wetting is essential.
MACADAMIAS Stinkbugs	20 ml/100 ℓ water	Commence spraying when nuts are marble size. Repeat after 4 weeks. If necessary another spray 4 weeks later can be applied, but not later than 30 days before harvest.
MAIZE AND SWEET CORN African bollworm ----- Stalk borer	Aerial Application: 150 ml/ha Ground Application: 1,5 ml/100 m row ----- Ground Application: 3,5 ml/100 m row Aerial Application: 350 ml/ha	NB: Refer to “Warning against African bollworm resistance” under “Resistance Warning” . Apply in 30 ℓ water/ha. Ensure timeous application, i.e. before larvae enter tassel and not later than 80% tassel emergence. Only larvae which come in contact with product will be controlled. Use in not less than 3 ℓ water/100 m row – ensure that nozzles are directed towards the cob. ----- Apply 7-10 days after 5 % or more plants are infested with eggs. Larvae in the stalk or bigger than 10 mm will not be controlled. Second spray could be necessary if infestation is over a long period. Do not apply in less than 3 ℓ water/100 m row. To ensure good coverage inside the funnel as well as on the sides of the plant, use at least two D4/35 or D5/35 nozzles per row. Apply in 30 ℓ water/ha.
PASTURES Army worm	150 ml/ha	<u>Ground Application:</u> Apply in 300 ℓ water/ha. <u>Aerial Application:</u> Apply in 30 ℓ water/ha.

CROP / PEST	DOSAGE	REMARKS
PEACHES & PLUMS African bollworm Codling moth False codling moth Fruit flies Banded Fruit Weevil (snout beetle)	5 ml/100 l water (HV 125 ml-175 ml/ha) 5 ml/100 l water (HV 125 ml-175 ml/ha) 5 ml/100 l water (HV 125 ml-175 ml/ha) 10 ml/100 l water (HV 250 ml-350 ml/ha) 10 ml/100 l water (HV 150 ml-350 ml/ha)	NB: Refer to “Warning against African bollworm resistance” under “Resistance Warning”. Apply as full cover spray at 75 % petal drop. Ensure full coverage. Full cover spray at 75 % petal drop. Repeat at 14-21 day intervals. Early cultivars A full cover spray should be applied 6 weeks before harvest and repeated at 14 day intervals. Late cultivars A full cover spray should be applied 8 weeks before harvest and repeated at 14 day intervals. In the summer rainfall regions first application must not be later than 3rd week December. Canning Peaches As above, but last application can be made 3 days before harvest. All cultivars A full cover spray should be applied 8 weeks before harvest and repeated at 14 day intervals. Canning peaches can be sprayed 3 days before harvest. In the summer rainfall regions first application must not be later than 3rd week December. Apply as soon as damage is noticed. Repeat after 4 weeks if necessary.

CROP / PEST	DOSAGE	REMARKS
PEAS African bollworm Lesser army worm	150 ml/ha	NB: Refer to “Warning against African bollworm resistance” under “Resistance Warning”. <u>Ground Application:</u> Apply in 300 - 500 ℓ water/ha. If necessary repeat at 14 day intervals. <u>Aerial Application:</u> Apply in 30 ℓ water/ha.
SORGHUM African bollworm	Ground Application: 1,5 ml/100 m row Aerial Application: 150 ml/ha	Refer to “ Warning against African bollworm resistance ” under “Resistance Warning”. Direct application onto ears. Do not apply in less than 3 litres water per 100 m row. Apply in 30 ℓ water/ha.
Stalk borer	Ground Application: 3,5 ml/100 m row Aerial Application: 350 ml/ha	Do not apply in less than 3 ℓ water/100 m row. To ensure good coverage inside the funnel as well as on the sides of the plant, use at least two D4/35 or D5/35 nozzles per row. Apply in 30 ℓ water/ha.
TOMATOES African bollworm	Ground Application: 15 ml/100 ℓ water 75 ml/ha 150 ml/ha	Refer to “ Warning against African bollworm resistance ” under “Resistance Warning”. At first signs of infestation, apply as full cover spray. Repeat at 7-10 day intervals or as necessitated by crop inspection. High Volume Apply up to 500 ℓ spray mixture to plants up to 600 mm high and 1 000 ℓ/ha or more to plants higher than 600 mm e.g. trellised tomatoes. Do not use more than 150 ml Cyperin 200 EC per hectare. Mist Blowers Apply in 150 ℓ water per ha for plants less than 600 mm tall. Apply in 500 ℓ water per ha for plants higher than 600 mm. Do not use more than 150 ml Cyperin 200 EC per hectare.
WINE & TABLE GRAPES Weevils	10 ml/100 ℓ water	Apply as soon as damage occurs. Repeat 3-4 weeks later if necessary. The occurrence of weevils can be expected from mid-October to mid-November. Ensure coverage of all parts of the plant.

Bladbuff 12® & Flushsol are the registered trademarks of AECI Limited (Nulandis™ a division of AECI Limited)
Bladbuff 7 is the registered tradename of Nulandis™ (A division of AECI Limited)

PAMFLET

CYPERIN 200 EC

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Botswana Reg Nr. W130737
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'n Emulgeerbare konsentraat kontak- en maaginsekdoder vir die beheer van verskeie insekplae op gewasse soos aangedui.

INSEKDODER GROEPKODE 3A

AKTIEWE BESTANDDEEL:

Sipermetrien (Piretroïed)

200 g/l

REGISTRASIEHOUER:

Nulandis™ ('n Afdeling van AECI Beperk)

Reg. Nr. 1924/002590/06

Posbus 14418

Witfield, 1467

Tel : (011) 823 8000



SKADELIK

WAARSKUWINGS:

**LAAT DIE VOLGENDE ONTHOUDINGSPERIODES TOE (MINIMUM AANTAL DAE)
TUSSEN LAASTE TOEDIENING EN OES OF BEWEIDING:**

GEWAS	DAE
PERSKES (INMAAK)	3
BOONTJIES, GRONDBONE (HOOI), ERTJIES	7
KATOEN (BEWEIDING), SORGHUM, WYN- & TAFELDRUIWE	28
KOOLGEWASSE, TAMATIES	4
LUSERN, WEIDING, MIELIES, SUIKERMIELIES, PERSKES,	14
APPELS, PRUIME EN PERE	
MAKADAMIAS	30

Hanteer versigtig. Giftig indien ingeasem, ingesluk of deur die vel opgeneem.

Mag irritasie van die vel, oë en asemhalingsstelsel veroorsaak.

Giftig vir vis, bye en wildlewe.

Vlambaar – moenie naby oop vlam spuit of stoor nie. Hou buite bereik van kinders, oningeligte persone en diere. Berg in 'n koel droë plek, weg van voedsel en voer.

Moenie op droë grond toedien vir snywurm beheer nie.

Herbetreding – Moenie behandelde gebied binne 1 dag na bespuiting binnegaan nie, tensy beskermende oorklere gedra word.

In geval van vergiftiging – **ONTBID 'N GENEESHEER EN STEL HIERDIE ETIKET AAN HOM BESKIKBAAR**

Lugtoediening - stel alle persone in die onmiddellike omgewing van die gebied wat behandel gaan word in kennis en reik die nodige waarskuwings uit. Moenie aangrensende gebiede of waterbronne bespuit of toelaat dat die sproeiwater daarheen oorwaai nie.

ALHOEWEL HIERDIE MIDDEL OMVATTEND ONDER 'N GROOT VERSKEIDENHEID 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 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 PLAË 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 'N GEBREK AAN PRESTASIE VAN DIE BETROKKE MIDDEL 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 VERSKAFFER IN DIE GEVAL VAN ENIGE ONSEKERHEID.

VOORSORGMATREËLS:

Vermyn inaseming en voorkom vel- en oogkontak met die sproeiwinkel.

Dra beskermende klere (gesigskerm rubberhandskoene- en skoene) wanneer konsentraat hanteer word.

Was met seep en water na gebruik of toevallige velkontak.

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

Verhoed besoedeling van voedsel, voer, drinkwater en eetgerei.

Verhoed wegdrywing van sproeiwinkel na ander gewasse, weiveld, riviere, damme en gebiede wat nie behandel word nie.

Maak toedieningsapparaat skoon met **FLUSHSOL** voor her-gebruik en doen weg met waswater waar dit nie gewasse, weiding, riviere, damme en boorgate sal besoedel nie.

Verwys na die **FLUSHSOL** etiket vir gebruiksaanwysings.

Sodra die houer leeg is keer dit om oor die spuitnek of mengbak en dreineer vir minstens 30 sekondes nadat die vloeï tot 'n gedrup verminder het. Spoel die houer daarna driekeer uit met 'n volume water gelykstaande aan 'n minimum van 10% van die houer. Gooi die spoelwater by die inhoud van die spuitnek voordat die houer op die voorgeskrewe wyse vernietig word. Vernietig die leë houer deur gate daarin te kap, plat te druk en te begrawe / te verbrand. Moenie die leë houer vir enige ander doel her-gebruik nie.

SIMPTOME VAN VERGIFTIGING:

Geen simptome bekend nie.

NOTA AAN GENEESHEER:

Verkry onmiddellik mediese behandeling deur 'n geneesheer.

Inaseming: Verwyder pasiënt na vars lug. Pas kunsmatige asemhaling toe en gee suurstof indien nodig. Verkry mediese hulp.

Ingesluk: MOENIE BRAKING VEROORSAAK nie, tensy so aanbeveel deur mediese personeel. Moenie iets per mond toedien aan 'n bewustelose persoon nie. Indien groot hoeveelhede van hierdie middel ingesluk is, moet 'n geneesheer onmiddellik ontbied word. Maak styfpassende klere, soos byvoorbeeld 'n kraag, das, belt of gordel los.

Velkontak: Ingeval van kontak, spoel onmiddellik met voldoende water af vir minstens 15 minute, terwyl besoedelde klere en skoene verwyder word. Beskerm die geïrriteerde vel deur 'n sagte room aan te vryf. Koue water mag gebruik word. Was klere voor hergebruik. Maak skoene deeglik skoon voor hergebruik. Verkry mediese hulp.

Oogkontak: Verseker dat kontaklense verwyder word. In geval van kontak, moet oë onmiddellik met genoegsame water uitgespoel word vir minstens 15 minute. Koue water mag gebruik word. Verkry mediese hulp.

NOTA AAN GENEESHEER:

Geen spesifieke teenmiddel. Behandel simptome.

WEERSTANDSWAARSKUWING:

Cyperin 200 EC is 'n groepkode 3A insekdoder. Enige populasie van 'n spesifieke insek mag individue insluit wat 'n natuurlike weerstand het teen **Cyperin 200 EC**, of enige ander Groepkode 3A insekdoders. Die weerstandbiedende individue domineer die insekpopulasie wanneer hierdie insekdoder herhaaldelik gebruik word. Die weerstandbiedende insekte mag dalk nie deur **Cyperin 200 EC** of ander Groepkode 3A insekdoders beheer word nie. Ervare konsultante moet gekontak word oor plaaslike weerstandsbeheer strategieë. Die volgende klassifikasies is gebaseer op die manier van werking. Hierdie klassifikasies bewys dat insek-en mytweerstand teen insek-en mytdoders ontstaan as gevolg van verhoogde metabolisme, verlaagde penetrasie of gedragsveranderinge. Hierdie verandering is nie gekoppel aan enige "site of action" klassifikasie nie, maar is spesifiek vir individuele chemikalieë of chemiese groepkodes. Nieteenstaande, bly die afwisseling van mengsels met verskillende chemiese klasse steeds 'n lewensvatbare bestuurstegniek.

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.

Vir verdere inligting kontak die registrasiehouer van hierdie produk.

Afrika bolwurm weerstandsbestuur:

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

KATOEN: Sintetiese piretroïede moet slegs gedurende die periode 1 Januarie tot 28 Februarie op katoen toegedien word. Moenie meer as twee toedienings per groeiseisoen toedien nie.

ALLE ANDER GEWASSE: Indien 'n piretroïedbespuiting swak beheer gee moenie met enige sintetiese piretroïed, selfs teen 'n korrektiewe dosis, herspuit word nie. Gebruik 'n produk vanuit 'n ander chemiese groepkode.

GEBRUIKSAANWYSINGS: GEBRUIK SLEGS SOOS AANGEDUI

VERENIGBAARHEID:

Moenie met die volgende meng nie: amitras, chinometionat, protiofos, vamidoton of seewierekstrakte nie. Moenie 'n benattingsmiddel by **Cyperin 200 EC** byvoeg wanneer appels, druiwe of pere gespuit word nie. **Cyperin 200 EC** is verenigbaar met die meeste katoenmytdoders wat algemeen gebruik word. Die verenigbaarheid van **Cyperin 200 EC** met ander produkte kan beïnvloed word deur die formulering van die betrokke produkte asook deur die kwaliteit van die water. Aangesien die formulering van ander produkte kan verander en die kwaliteit van die water ook van plaas tot plaas kan varieër, moet 'n fisiese verenigbaarheidstoets altyd uitgevoer word voordat gespuit word.

MENGINSTRUKSIES:

Die byvoeging van **Bladbuff 7** (Reg. Nr. L8121, Wet 36 van 1947) of **Bladbuff 12** (Reg. Nr. L8201, Wet Nr. 36 van 1947) by die water in die spuittenk word aanbeveel, vóór die byvoeging van **Cyperin 200 EC**, om alkaliese hidroliese te voorkom. Meng **Bladbuff 7** of **Bladbuff 12** altyd eerste met die spuitwater. Vir optimale stabiliteit, moet **Cyperin 200 EC** by 'n pH van 3-4 gebruik word.

Vul die spuittenk tot halfvol met skoon water. Voeg die korrekte hoeveelheid **Cyperin 200 EC** by terwyl deeglik geroer word. Vul tenk en verseker deeglike vermenging terwyl gespuit word. Roer aanhoudend terwyl die spuittenk volgemaak word asook gedurende bespuiting. Aangemaakte spuitmengsel moenie in die spuittenk gelaat word vir enige onbepaalde tydperk nie, bv., oornag nie.

GRONDTOEDIENING:

Maak gebruik van hoë volume konvensionele spuitapparaat of 'n newelblaser toegerus met holkeël spuitkoppe wat 'n gemiddelde, tot fyn druppelgrootte lewer. Die spuite moet akkuraat gekalibreer word voor toediening om 'n goeie bedekking te verseker. Versprei die spuitmengsel egalig oor die teikengebied. Die gebruik van valarms op 'n konvensionele spuitbalk word aanbeveel wanneer gewasse soos katoen en tamaties gespuit word. Moenie plante wat nat is as gevolg van dou of reën bespuit nie.

LUGTOEDIENING:

Lugtoediening mag slegs deur 'n geregistreerde lugbespuitingsoperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS Kode 10118 (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 60 tot 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 swaaihigrometer bepaal, moet nie 8°C oorskry nie.
- Moenie toedien tydens turbulente, onstabiele toestande gedurende die hitte van die dag wanneer styg en dalende konveksie windbeweging plaasvind nie.
- Moenie toedien onder temperatuur inversie toestande (deur bo of binne die inversielaag te spuit) nie.
- Moenie spuit indien die windspoed 15 km/uur oorskry nie.

Algemeen :

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

TOEDIENINGSTABEL:

GEWAS/PLAAG	DOSIS	OPMERKINGS
ALLE GEWASSE Snywurms	Grondtoediening: 100 ml/ha 0.33 ml/100 m plant ry Lugtoediening: 100 ml/ha	Dien toe as 'n voor- of na-opkomsbespuiting sodra die plaag opgemerk word. Die boonste 3 cm van die grond moet klam wees. Indien 'n herbesmetting voorkom, herhaal bespuiting. 1. Algehele behandeling: Dien toe in 300 ℓ water/ha 2. Strookbehandeling (300 mm breë band): Gebruik in ten minste 3 ℓ water per 100 m ry. Dien toe in 30 ℓ water /ha.
APPELS & PERE Kodlingmot, Bladrollers, Afrika bolwurm	5 ml/100 ℓ water Hoë volume (125 –175 ml / ha) Lae volume (100 - 140 ml / ha)	LW: Sien waarskuwing teen bestandheid van Afrika bolwurm onder “WEERSTANDSWAARSKUWING”. Dien eerste toediening by 75 % blomblaarval toe en herhaal met 14-dae tussenposes. Dien toe as 'n korrektiewe behandeling maar nie vroeër as 75 % blomblaarval nie. Gebruik 2 500 – 3 500 ℓ spuitmengsel/ ha. Waarskuwing: Giftig vir bye.
----- Gebande Vrugtekalande (Snuitekwer)	----- 10 ml/100 ℓ water Hoë volume (250 - 350 ml/ha) Lae volume (200 - 280 ml/ha)	Hoë volume toediening: Gebruik 2 500 – 3 500 ℓ spuitmengsel per ha. Dien twee bespuitings toe, die eerste tydens 75 % blomblaarval en herhaal 4 weke later. 'n Verdere hoë of lae volume bespuitings kan gedurende middel Januarie toegedien word om laatseisoenskade te voorkom. Lae volume toediening: Gebruik ¼ tot 1/8 van die spuitvolume soos vir hoë volume aangedui.
BOONTJIES Afrika bolwurm	150 ml/ha	LW: Sien waarskuwing teen bestandheid van Afrika bolwurm onder “WEERSTANDSWAARSKUWING”. <u>Grondtoediening:</u> Dien toe in 300 ℓ water/ha Verken lande gereeld en indien nodig herhaal bespuiting. Dien toe sodra eiers of larwes opgemerk word. <u>Lugtoediening:</u> Dien toe in 30 ℓ water/ha.

GEWAS/PLAAG	DOSIS	OPMERKINGS
BOSBOU Denneboom pou- oogmot larwes ----- Wilgerboom pou- oogmot larwes ----- Wattelboom sakwurm	Lugtoediening: 50 ml/ha ----- Lugtoediening: 100 ml/ha ----- Lugtoediening: 100 ml/ha	Dien toe in 30 ℓ water/ha. Dien toe in 30 ℓ water/ha. Dien toe in 30 ℓ water/ha. Begin bespuiting gedurende November/Desember.
ERTJIES Afrika bolwurm, klein Kommandowurm	150 ml/ha	LW: Sien waarskuwing teen bestandheid van Afrika bolwurm onder “ WEERSTANDSWAARSKUWING ”. <u>Grondtoediening:</u> Dien toe in 300-500 ℓ water. Herhaal indien nodig, met 14- dae tussenposes. <u>Lugtoediening:</u> Dien toe in 30 ℓ water/ha.
GRONDBONE Afrika bolwurm	150 ml/ha	LW: Sien waarskuwing teen bestandheid van Afrika bolwurm onder “ WEERSTANDSWAARSKUWING ”. <u>Grondtoediening:</u> Dien toe in 250 ℓ water/ha. <u>Lugtoediening:</u> Dien toe in 30 ℓ water/ha. Begin bespuiting sodra die eiers of plaag opgemerk word. Herhaal indien nodig
KATOEN Afrika-, Rooi- en Stekelrige bolwurm, Vlekbesies & Vals- (<i>Plusia</i>) landmeter	7-dae Suijprogram Grondtoediening: 75 ml/100 ℓ water Lugtoediening: 175 ml/ha	LW: Sien waarskuwing teen bestandheid van Afrika bolwurm onder “ WEERSTANDSWAARSKUWING ”. Cyperin 200 EC word hoofsaaklik aanbeveel gedurende die tydperk van vrugvorming d.w.s. vanaf spits blomtyd tot bolbars (ongeveer 10 – 22 weke na opkoms) as ‘n voorkomende beheermaatreël teen alle bolwurmlarwes. Bespuiting word gebaseer op gereelde verkenning of ‘n gereelde spuitprogram. Cyperin 200 EC kan ook korrektyf gebruik word teen bolwurmlarwes en blaarvreters indien hulle gedurende verkenning gevind word. ‘n Bolwurm bespuitingsprogram sal normaalweg in aanvang neem wanneer die plante begin blom, maar ten einde goeie plaagbestuur toe te pas, moet Cyperin 200 EC nie vanaf hierdie tydperk tot spits blomtyd (10 – 12 weke na plantopkom) gebruik word nie. Tydens hierdie periode kan profenofos vir die beheer van Afrika bolwurm gebruik word. Dien voldoende spuitmengsel toe om deeglike bedekking van die plante te verseker. Dien 200 ℓ spuitmengsel per hektaar toe. Dien in 30 ℓ water/ha toe.
NOTAS: 1. Dien Cyperin 200 EC vanaf week 12 toe sodra die volgende eier- en larwebesmettings bereik word: Afrika bolwurm: 2 larwes of 12 eiers per 24 plante. Rooibolwurm: 2 larwes of 6 eiers per 24 plante Stekelrige bolwurm: 2 larwes 2. ‘n 7-dae spuitprogram kan gevolg word. 3. Die helfte van die bogenoemde dosis kan gebruik word op katoen 600 mm en kleiner bv. 100 ℓ spuitmengsel per ha in die geval van grondtoediening. 4. In die geval van ‘n hoë besmetting – meer as twee bolwurmlarwes per 24 plante, is dit raadsaam om die toedieningshoeveelheid te verhoog.		

GEWAS/PLAAG	DOSIS	OPMERKINGS
KOOLGEWASSE Afrika bolwurm, Ruitrugmot larwes, Blaaspootjie	10 ml/100 ℓ water	LW: Sien waarskuwing teen bestandheid van Afrika bolwurm onder " WEERSTANDSWAARSKUWING ". Bespuit tydens die eerste tekens van besmetting en verseker deeglike benatting. Herhaal 10-14 dae later indien nodig.
LUSERN Lusernruspe	Grondtoediening: 75 ml/ha	Dien 'n voldekbepuiting in 300 ℓ water/ha toe sodra plaag opgemerk word. Goeie benatting en bedekking is noodsaaklik.
MAKADAMIAS Stinkbesies	20 ml/100 ℓ water	Begin behandeling sodra neutte albastergrootte bereik het en herhaal na 4 weke. Indien nodig mag 'n verdere bespuiting 4 weke later nodig wees. Verseker minstens 30 dae tussen laaste bespuiting en oes.
MIELIES EN SUIKERMIELIES Afrika bolwurm Stronkboorder	Lugtoediening: 150 ml/ha Grondtoediening: 1,5 ml/100 m ry Grondtoediening: 3,5 ml/100 m ry Lugtoediening: 350 ml/ha	LW: Sien waarskuwing teen bestandheid van Afrika bolwurm onder " WEERSTANDSWAARSKUWING ". Dien toe in 30 ℓ water/ha. Vir bevredigende beheer moet bespuiting geskied voordat die bolwurmlarwe die baard indring en verskuil, maar nie later as 80 % baardverskyning nie. Slegs larwes wat in kontak met die middel kom sal beheer word. Moenie in minder as 3 ℓ water per 100 m rylengte gebruik nie. Verseker goeie bedekking op die mieliekop. Dien toe 7-10 dae na 5 % of meer plante met eiers besmet is. Larwes wat klaar binne die stam is, of groter as 10 mm is, sal nie beheer word nie. Indien besmetting oor 'n lang tydperk geskied, kan meer as een bespuiting nodig wees. Dien toe in 3 ℓ water/100 m rylengte. Verseker dat die plant beide binne in die kelk sowel as aan die buitekant goed bedek is. Gebruik ten minste twee D4/35 of D5/35 spuitpunte oor 'n ry. Dien toe in 30 ℓ water/ha.
PERSKES EN PRUIE Afrika bolwurm ----- Kodlingmot	5 ml/10 ℓ water (HV 125 ml -175 ml/ha) ----- 5 ml/100 ℓ water (HV 125 ml-175 ml/ha)	LW: Sien waarskuwing teen bestandheid van Afrika bolwurm onder " WEERSTANDSWAARSKUWING ". Dien toe as 'n voldekbepuiting tydens 75 % blomblaarval. Verseker volle bedekking. ----- Dien toe as 'n voldekbepuiting tydens 75 % blomblaarval. Herhaal met 14 - 21 dae tussenposes.

Valskodlingmot	5 ml/100 ℓ water (HV125 ml - 175 ml/ha)	Vroeë kultivars: Dien toe as 'n voldekbespuiting 6 weke vóór oes en herhaal met 14-dae tussenposes. Laat kultivars: Dien toe as 'n voldekbespuiting 8 weke vóór oes en herhaal met 14-dae tussenposes. In die somerreënval gebied moet die eerste behandeling nie later as die 3de week in Desember geskied nie. Inmaak perskes: Soos hierbo, behalwe dat laaste toediening 3 dae vóór oes kan geskied.
Vrugtevlieë	10 ml/100 ℓ water (HV 250 ml-350 ml/ha)	Alle kultivars: Dien 'n voldekbespuiting 8 weke vóór oes toe en herhaal met 14-dae tussenposes. Inmaak perskes kan tot 3 dae vóór oes gespuit word. In die somerreënval gebied moet die eerste behandeling nie later as die 3de week in Desember geskied nie.
Gebande vrugtekalanders (Snuitkewer)	10 ml/100 ℓ water (HV 150 ml-350 ml/ha)	Dien toe sodra skade opgemerk word en herhaal indien nodig na 4 weke.
SORGHUM Afrika bolwurm	Grondtoediening: 1,5 ml/100 m ry	LW: Sien waarskuwing teen bestandheid van Afrika bolwurm onder " WEERSTANDSWAARSKUWING ".
Stronkboorder	Lugtoediening: 150 ml/ha	Rig toediening op are. Moenie in minder as 3 ℓ water/100 m ry toedien nie. Dien toe in 30 ℓ water/ha.
	Grondtoediening: 3,5 ml/100 m ry	Moenie in minder as 3 ℓ water/100 m ry toedien nie. Verseker dat die plant beide binne in die kelk sowel as aan die buitekant goed bedek is. Gebruik ten minste twee D4/35 of D5/35 spuitpunte oor 'n ry.
	Lugtoediening: 350 ml/ha	Dien toe in 30 ℓ water/ha.

GEWAS/PLAAG	DOSIS	OPMERKINGS
TAMATIES Afrika bolwurm	Grondtoediening: 15 ml/100 ℓ water 75 ml/ha 150 ml/ha	LW: Sien waarskuwing teen bestandheid van Afrika bolwurm onder “WEERSTANDSWAARSKUWING”. Dien 'n voldekbepuiting toe tydens die eerste tekens van 'n besmetting. Herhaal met 7-10 dae tussenpose soos benodig. Hoë volume: Plante 600 mm en kleiner, dien tot 500 ℓ spuitmengsel toe, plante groter as 600 mm dien tot 1 000 ℓ / ha spuitmengsel toe, bv. opgeleide tamaties. Moenie meer as 150 ml Cyperin 200 EC/ha gebruik nie. Newelblasers: Plante 600 mm en kleiner, dien toe in 150 ℓ water per ha. Plante 600 mm en groter, dien toe in 500 ℓ water per ha. Moenie meer as 150 ml Cyperin 200 EC/ha gebruik nie.
WEIDING Kommandowurm	150 ml/ha	<u>Grondtoediening:</u> Dien toe in 300 ℓ water/ha. <u>Lugtoediening:</u> Dien toe in 30 ℓ water/ha.
WYN- EN TAFELDRUIWE Kalanders (Snuitkewers)	10 ml/100 ℓ water	Behandel sodra skade opgemerk word. Herhaal 3-4 weke later indien nodig. Kalanders kom gewoonlik tussen middel Oktober tot middel November voor. Verseker dat alle plantdele deeglik benat word.

Bladbuff 12® & Flushsol® is die geregistreerde handelsmerke van AECl Beperk (Nulandis® 'n afdeling van AECl Beperk)

Bladbuff 7 is die geregistreerde handelsnaam van Nulandis® ('n Afdeling van AECl Beperk)