

UPHOLD® 360 SC

INSECTICIDE

Registration number/Registrasie nommer: L10164 ACT No. 36 of 1947 / WET Nr. 36 of / van 1947
N-AR 1902
W130910

READ THE LABEL BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS

IRAC: GROUP CODE	5A/18	INSECTICIDE
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A SUSPENSION CONCENTRATE CONTACT AND STOMACH INSECTICIDE (MOULT ACCELERATING COMPOUND) FOR THE CONTROL OF INSECT PESTS ON AGRICULTURAL CROPS AS LISTED.	'N SUSPENSIEKONSENTRAAT KONTAK EN MAAGINSEKDODER (VERVELLINGSVERSNELLINGSMIDDEL) VIR DIE BEHEER VAN INSEKPLAE IN LANDBOUGEWASSE SOOS AANGEDUI.
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HAZARD STATEMENTS:

May cause an allergic skin reaction.
 Suspected of damaging fertility.
 Very toxic to aquatic life with long lasting effects.



PRECAUTIONARY STATEMENTS:

Obtain, read and follow all safety instructions before use.
 Avoid breathing dust/fume/gas/mist/vapour/spray.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If exposed or concerned, get medical advice.
 Collect Spillage.
 Dispose of contents/container in accordance with applicable regulations.



WARNING

Active Ingredient/Aktiewe Bestanddeel

Spinetoram/methoxyfenoziide..... 360 g/LSpinetoram/methoxyfenoziide

Net volume L Netto volume

REGISTRATION HOLDER / REGISTRASIEHOUER
 CORTEVA AGRISCIENCE RSA (PTY) LTD / (EDMS) BPK
 REG NO 1991/003030/07

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Batch No. Lot Nr.
 Date of Manufacture Datum van Vervaardiging
 Expiry Date Vervaldatum

UN NO: 3082

Poisons Helpline: +27(0)861-555-777
 Local Emergency No: +27(0)82-895-0621 (SA only)
 24 Hour Emergency Tel No: +32-3-575-5555
 Information Hotline Tel No: +27(0)12 683-5700

UPHOLD® 360 SC/2023-05-08

WARNINGS:

HAZARD STATEMENTS:

- May cause an allergic skin reaction.
- Suspected of damaging fertility.
- Very toxic to aquatic life with long lasting effects.

Withholding period - Minimum time between last application and harvest:

Cruciferae (all)	21 days
Maize	21 days
Sweetcorn	21 days
Sorghum	21 days

NOTE: Compliance with these withholding periods will ensure that residues do not exceed local Maximum Residue Limits. However, the import tolerances of other countries may differ, and local residue limits and withholding periods may possibly not comply with those of other countries. If the crop to be treated is intended for export, consult the relevant importer or exporting body regarding the use of this product, Maximum Residue Limits, and recommended withholding periods.

Re-entry interval: Do not enter treated area until spray deposit has dried unless wearing protective clothing.

- Handle with care.
- May cause slight eye irritation.
- This product is moderately toxic to fish and toxic to aquatic invertebrates. Do not apply directly to open water.
- Store in a cool dry place, away from food and feedstuffs.
- Keep out of the reach of children, uninformed person and animals.
- Beneficial Insects:
 - ❖ This product is toxic to bees when exposed to direct spray, or wet spray deposit.
 - ❖ Do not apply directly to foraging bees, or bee colonies.
 - ❖ **UPHOLD® 360 SC** will not interfere with the activities of honeybees once the spray deposit has dried.
 - ❖ Apply only during night to crops in flower or where other foraging vegetation is within 500 m from the spraying area.
 - ❖ Allow at least 12 hours between application and foraging period of bees.

Co-ordinate in this regard with neighbours, beekeepers and local extension services when applying in the vicinity of crops in flower.

Parasitoids: "Slightly harmful"

Predatory Mites: "Harmless to slightly harmful to some species"

Predatory beetles eg. Coccinellidae: "Harmless"

Neuroptera: "Harmless"

Lacewings: "Harmless"

Predatory bugs: "Harmless"

DISCLAIMER:

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 climatic and storage conditions; quality of dilution water; compatibility with other substances not indicated on the label and the occurrence of resistance of the pest against the remedy concerned as well as by the method, time and accuracy of application. The registration holder, furthermore, does not accept responsibility for damage to crops, vegetation, the environment, or harm to man or animal, or for lack of performance of the remedy concerned, due to failure of the use 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:

- Obtain, read and follow all safety instructions before use.
- Avoid breathing dust/fume/gas/mist/vapour/spray.
- Wear protective gloves/protective clothing/eye protection/face protection.
- If exposed or concerned, get medical advice.
- Collect Spillage.
- Dispose of contents/container in accordance with applicable regulations.

Store in original labeled container, tightly closed and in a locked, dry, cool and well ventilated area, well away from foodstuffs.

Avoid inhalation of spray mist.

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

Wear gloves and face shield when handling.

Avoid contamination of skin and eyes. In case of accidental contact with eyes, wash with running water for at least 15 minutes. Get medical attention if irritation persists.

Do not eat, drink, or smoke whilst mixing or applying.

Wash hands and face before eating, drinking, smoking, or using the toilet.

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

Clean all spray equipment before using for other remedies and dispose of wash water in areas already sprayed where it will not contaminate crops, grazing, rivers, dams, and water sources.

Invert the empty container for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse empty container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsings to the contents of the spray tank before destroying the container by perforation, flattening, and burying and do not use for any other purpose.

Prevent contamination of food, feedstuffs, drinking water and eating utensils by handling, storage, or disposal.

RELEVANT SUBSTANCES:

COMPONENT	CAS No.	Concentration (% w/w)
Methoxyfenozide	161050-58-4	28,36
Spinetoram J & L (CAS# 187166-40-1 & 187166-15-0)	935545-74-7	5,61
Naphthalenesulfonic acid, formalde-hyde ammonium salt copolymer	9069-80-1	>= 3 - < 10
1,2-benzisothiazol-3(2H)-one	2634-33-5	>= 0,025 - < 0,05

FIRST AID MEASURES:

Protection of first aiders

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection).

Inhalation

Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration, if by mouth-to-mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

Skin contact

Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly.

Eye contact

Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice. Suitable emergency eye wash facility should be available in work area.

Ingestion

No emergency medical treatment necessary.

DIRECTIONS FOR USE:

Use only as indicated

Shake well before use.

UPHOLD® 360 SC is a suspension concentrate, which should be mixed with water and applied as a foliar spray with ground equipment equipped for conventional insecticide application. **UPHOLD® 360 SC** works by both contact and ingestion activity. Exposed larvae stop feeding immediately but can take up to 3 days to mortality. Proper coverage of target area is important.

Insecticide Resistance Management (IRM)

The classification scheme of insecticides is based on "mode of action" **UPHOLD® 360 SC** is classified as a spinosyn (IRAC subgroup 5A) and methoxyfenozide (IRAC group 18) insecticide. Do not apply more than two (2) applications of **UPHOLD® 360 SC** to any crop in any one season. Use insecticides from a different chemical group if more than two (2) applications are required.

Any insect population may contain individuals naturally resistant to **UPHOLD® 360 SC** and other spinosyns and methoxyfenozide. The resistant individuals will eventually dominate the insect population if these insecticides are used repeatedly over long periods or to consecutive generations. **UPHOLD® 360 SC** or other spinosyn and methoxyfenozide insecticides may not control these resistant insects. Local experts should be consulted for resistance strategies and specific recommendations. It is recognised 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 this, alternation of compounds from different chemical classes remains a viable anti-resistance management technique.

To delay insecticide resistance

- Avoid the exclusive repeated use of insecticides from the same chemical subgroup.
- Do not use less than recommended label rates of any insecticides.
- Target applications preferably against early instar larvae and eggs of the pest whenever possible.
- Include proven cultural and biological control practices within an Integrated Pest Management Programme.

Integrated Pest Management (IPM) Programme:

UPHOLD® 360 SC can be recommended for IPM programmes in various crops. **UPHOLD® 360 SC** should be applied when field scouting/monitoring indicates target pest populations have reached the economic threshold. Other than reducing the target pest species as a food source, **UPHOLD® 360 SC** used under GAP, does not have a significant impact on certain parasitic or predaceous insects and mites, including ladybirds, lacewings, assassin bugs, predatory mites, etc. Although **UPHOLD® 360 SC** is classified as “harmful” to Parasitoids, field studies showed a rapid recovery of numbers after application. The feeding activities of these beneficial arthropods will aid in the extended natural control of other insects and reduce the likelihood of secondary pest outbreaks for which additional insecticide treatments may be needed. If **UPHOLD® 360 SC** is tank mixed with any insecticide that reduces its selectivity **UPHOLD® 360 SC** in preserving beneficial predatory insects, then the full benefit of **UPHOLD® 360 SC** to the IPM programme may be reduced.

MIXING INSTRUCTIONS:

Compatibility with other agrochemicals has not been tested.

Mixing UPHOLD® 360 SC alone:

Fill the spray tank with water to about half of the total spray volume required. Start agitation and add the required amount of **UPHOLD® 360 SC** to the spray tank. Continue mixing and agitation while filling the spray tank to the required spray volume. Maintain sufficient agitation during application to ensure uniformity of the spray mix. Do not allow water or spray mixture to back-siphon into the water source.

Compatibility, pH and tank mixing:

Do not apply **UPHOLD® 360 SC** in muddy water. Although the pH of the spray mixture does not have an effect on the initial knockdown performance of **UPHOLD™ 360 SC**, a low pH value (< pH 5) of the spray mixture will decrease the residual performance. Buffer agents are generally not needed. Acidifiers or products that will acidify the spray mixture below pH 5 (e.g., phosphonates, high rates of foliar fertilizers, etc.) should be avoided or buffered back to pH 5 - 8. **UPHOLD® 360 SC** will perform best at pH 5 - 8.

Rainfastness: Avoid applications when rain is expected within 6 hours of spraying.

APPLICATION

Proper application techniques help ensure thorough spray coverage and the correct dosage necessary to obtain optimum control of insect pests. The following recommendations are provided for effective application of **UPHOLD™ 360 SC**. To ensure adequate spray coverage, attention should be given to proper ground speed and calibration as well as conditions such as wind speed, and foliar canopy.

GROUND APPLICATION

Thorough wetting of plants is important to achieve good pest control. For broadcast application a spray volume of 300 l spray mixture per hectare should be used. For row application a spray volume of 3 l spray mixture per 100 m row length should be used.

NOTE: MAIZE AND SWEETCORN

Maize stalk borer (*B. fusca*)

Applications are based on scouting results.

a) **Maize**

Apply when 10% of the plants show shothole damage. If the larvae are bigger than 10 mm or when re-infestation occurs, a second application 10 - 12 days later may be necessary.

b) **Sweetcorn**

Apply when the first signs of shothole damage are visible. Repeat applications every 14 days when re-infestations of Sorghum stalkborer (*C. partellus*) occur. Do not apply after tassel emergence.

c) Do not apply to crops under drought stress. Systemic activity is reduced by maturity. Therefore, apply to maize and sweetcorn which is growing **actively and only apply up to the stage before the tassels/ears are enclosed by the flag leaf** of the crops. Treat before larvae have entered the stalks.

d) Rain or irrigation within 6 hours after application may adversely affect pest control and a follow-up application may be necessary.

CROP/PEST	DOSAGE/HA	REMARKS
<p>MAIZE, SWEETCORN AND SORGHUM</p> <p>Maize Stalkborer (<i>Busseola fusca</i>)</p> <p>Sorghum Stalkborer (<i>Chilo partellus</i>)</p> <p>Fall army worm (<i>Spodoptera frugiperda</i>)</p>	<p>400 ml</p> <p>Row treatment Ground application 4 ml UPHOLD® 360 SC in 3 l water per 100 m row length</p>	<p>Do not apply to crops under drought stress. Apply UPHOLD® 360 SC to crops that are growing vigorously and apply up to the stage before the tassels/ears are enclosed by the flag leaf of the maize. Treat before larvae enter the stalks, larvae that have already tunneled into the funnels will not be controlled.</p> <p>Use 300 l/ha spray volume. The first application must be made when 10 % of the plants show shothole damage.</p> <p>For sweetcorn apply when shothole damage is visible.</p> <p>When the larvae are bigger than 10 mm or a re-infestation occurs, a second application may be necessary within 10-14 days after the first application.</p> <p>Larvae that are present in the stems of plants at application will not be controlled. For sweetcorn apply preventatively or as soon as shothole damage is observed. Apply over the funnel of plants and ensure thorough coverage.</p> <p>If re-infestation occurs a repeat application may be required within 10-14 days.</p> <p>The first application must be made when 10% or less of the plants show shothole damage. For sweetcorn apply preventatively or as soon as shothole damage is observed.</p> <p>Apply over the funnel of plants and ensure thorough coverage.</p> <p>If re-infestation occurs a repeat application may be required within 10-14 days.</p> <p>Note: Do not apply UPHOLD® 360 SC in more than two consecutive applications or in total more than three times per season.</p>

CROP/PEST	DOSAGE/HA	REMARKS
<p>CRUCIFERAE (All cruciferae crops) Diamond back moth larvae (<i>Plutella xylostella</i>)</p> <p>Fall army worm (<i>Spodoptera frugiperda</i>)</p>	<p>350-400 ml</p>	<p>Apply UPHOLD® 360 SC as a full cover spray at a minimum of 500l/ha every 7-10 days.</p> <p>Start application when pest is first noticed or apply as a follow-up application in a spray programme after insecticides from a different class as required in anti-resistant programmes. Apply a minimum of two consecutive UPHOLD® 360 SC sprays to ensure effective control of pest.</p> <p>Use the higher rate when a corrective application is made. The lower rate may be used for follow-up applications when applied in a spray programme.</p> <p>Use the shorter spray interval of 7 days when heavy infestations occur or when climatic conditions favour the pest e.g during summer months.</p> <p>Note: Do not apply UPHOLD® 360 SC in more than two (2) consecutive applications, or in total more than four times per season. Rotate in a spray programme with a different chemical class of insecticide for the duration of at least one generation of the pest.</p>

Local emergency No: +27(0)82-895-0621 (SA only)
24 Hour emergency Tel No: +32-3-575-5555
Information hotline Tel No: +27(0)12) 683-5700

WAARSKUWINGS

RISIKOVERKLARINGS:

Kan 'n allergiese velreaksie veroorsaak.
Word daarvan verdink dat dit vrugbaarheid beskadig.
Baie giftig vir waterlewe met langdurige effekte.

Onthoudingsperiode - Minimum tyd wat tussen die laaste toediening en oes moet verstryk:

Koolgewasse (Alle)	21 dae
Mielies	21 dae
Suikermielies	21 dae
Sorghum	21 dae

LET WEL: Nakoming van bogenoemde onthoudingsperiodes sal verseker dat die plaaslike vereistes vir Maksimum Residu Limiete nie oorskry word nie. Die invoertolleransies van ander lande mag egter verskil en plaaslike vlakke en onthoudingsperiodes mag dalk nie voldoen aan die vereistes van ander lande nie. Indien die gewas wat behandel gaan word vir uitvoer bestem is, skakel met die betrokke invoerder of uitvoerorganisasie rakende die gebruik van hierdie produk, maksimum residuvereistes en aanbevole onthoudingsperiodes.

- Hanteer die produk versigtig.
- Mag moontlike ligte oogirritasie veroorsaak.
- Matig giftig vir vis en giftig vir waterorganismes. Moenie oor oop waterbronne toedien nie.
- Berg in 'n koel, droë plek en verwyderd vanaf voedsel en veevoer.
- Hou buite bereik van kinders, oningeligte persone en diere.
- Voordelige Insekte:
 - ❖ Hierdie produk is giftig vir bye wanneer hul aan direkte bespuiting, of nat spuitresidu, blootgestel word.
 - ❖ Moenie direk op kolonies of aktiewe bye spuit nie.
 - ❖ Spuit gedurende nag op gewasse in blom of waar 'n gewas binne 500 m van die area wat bespuit moet word, in blom is.
 - ❖ Laat minstens 'n periode van 12 ure tussen toediening en bye aktiwiteit toe.
 - ❖ **UPHOLD® 360 SC** sal nie met byaktiwiteite inmeng na afdroog van spuitreste nie.
 - ❖ Studies het geen nadelige invloed op die bykorwe getoon nie.

Stel bure, byeboere asook plaaslike voorligters in kennis voordat in die nabyheid van gewasse in blom, toegedien word. **UPHOLD® 360 SC** het slegs 'n geringe invloed op bye, nadat die spuitstof afgedroog het.

- Parasiete: "Effens skadelik"
- Predatormyte: "Veilig tot effens skadelik vir sommige spesies".
- Predatoreise Kewers bv. Coccinillidae: "Relatief skadeloos".
- Mierlees (Neuroptera): "Relatief skadeloos".
- Roofwantse: "Relatief skadeloos".

Herbetredingsperiode:

Tensy beskermende klere gedra word, moenie 'n behandelde gebied betree alvorens die spuitneerslag afgedroog het nie.

VRYWARING

Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie, aangesien die werking en effek daarvan 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 plaag teen die betrokke middel sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer 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.

VOORSORGMAATREËLS

VOORKOMENDE VERKLARINGS:

Verkry, lees en volg alle veiligheidsinstruksies voor gebruik.
Vermy asemhaling van stof/rook/gas/mis/damp/sproei.
Dra beskermende handskoene/beskermende klere/oogbeskerming/gesigskerm.
Indien blootgestel of bekommerd, kry mediese advies.
Versamel mors.
Raak ontslae van die inhoud/houer in ooreenstemming met toepaslike regulasies

Berg altyd in die oorspronklike ge-etiketeerde houer. Die houer moet toe wees en moet in 'n droë, koel, goed geventileerde stoorplek geberg word, wat te alle tye gesluit is. Berg verwyderd van voedsel en voer.

Vermy die inaseming van sproeinewel.

Was met water en seep in geval van toevallige kontak met vel.

Dra handskoene en 'n gesigskerm wanneer hanteer word.

Vermy vel- en oogkontaminasie. In geval van toevallige oogkontak, spoel oë met lopende water vir ongeveer 15 minute. Verkry mediese hulp indien oogirritasie nie sou opklaar nie.

Moenie eet, drink of rook terwyl gemeng of toegedien word nie.

Tydens vermenging of toediening moet die hande en gesig altyd gewas word voordat geëet, gedrink, gerook of die toilet besoek word.

Vermy wegdrywing van spuitnewel na aangrensende gewasse, weidings, riviere of damme.

Maak alle toerusting skoon voordat vir ander middels gebruik word en gooi spoelwater weg in reeds gespuite area waar dit nie gewasse, weiding, riviere, damme en waterbronne sal besoedel nie.

Ledig houers deur dit vir ongeveer 30 sekondes omgekeer te hou totdat die uitvloei van die inhoud tot 'n stadige drup verlangsaam. Spoel die leë houer daarna drie maal uit met water gelykstaande aan ongeveer 10 % van die volume van die houer en voeg die spoelwater by die inhoud van die spuittenk. Vernietig die leë houer deur gate in te kap, plat te slaan en te begrawe. Moet nooit leë houers vir enige ander doel aanwend nie.

Voorkom die besoedeling van kos, voedingstowwe, drinkwater en eetgerei tydens opberging, hantering en wegdoening.

RELEVANTE STOWWE:

KOMPONENT	CAS No.	Konsentraat (% w/w)
Metoksifenosied	161050-58-4	28,36
Spinetoram J & L (CAS# 187166-40-1 & 187166-15-0)	935545-74-7	5,61
Naftaleensulfonsuur, formaldehyd ammoniumsout kopolimeer	9069-80-1	>= 3 - < 10
1,2-bensisotiasool-3(2H)-een	2634-33-5	>= 0,025 - < 0,05

NOODHULPMAATREËLS

Beskerming van noodhulp

Noodhulppersoneel moet aandag gee aan selfbeskerming en die aanbevole beskermende klere (chemikaliebestande handskoene, spatbeskerming) gebruik.

Inaseming

Beweeg persoon na vars lug. As persoon nie asemhaal nie, ontbied 'n noodhulpdiens of ambulans, gee dan kunsmatige asemhaling, indien mond-tot-mond redderbeskerming (sakmasker, ens.) gebruik. Bel 'n gifbeheersentrum of dokter vir behandelingsadvies.

Velkontak

Trek besmette klere uit. Was vel met seep en baie water vir 15-20 minute. Bel 'n gifbeheersentrum of dokter vir behandelingsadvies. Was klere voor hergebruik. Skoene en ander leeritems wat nie ontsmet kan word nie, moet behoorlik weggedoen word.

Oogkontak

Hou oë oop en spoel stadig en saggies uit met water vir 15-20 minute. Verwyder kontaklense, indien teenwoordig, na die eerste 5 minute, gaan dan voort om oë uit te spoel. Bel 'n gifbeheersentrum of dokter vir behandelingsadvies. Geskikte nood-oogspoelfasiliteit moet in die werkarea beskikbaar wees.

Inname

Geen mediese noodbehandeling nodig nie

GEBRUIKSAANWYSINGS: **Gebruik slegs soos aangedui.**

Skud goed voor gebruik.

UPHOLD® 360 SC is 'n suspensie konsentraat, wat vooraf met water vermeng moet word om deur middel van konvensionele spuitapparaat as looftoedienings op plante toegedien te word.

UPHOLD® 360 SC werk deur middel van kontak aksie en inname. Larwes wat blootgestel word aan die produk hou dadelik op om te voed, maar dit mag tot drie (3) dae neem voor mortaliteit intree. Goeie bedekking van die teikenarea is belangrik.

Weerstandbestuur van insekmiddels

Insekdoders word geklassifiseer op grond van hul werkingswyse. ("Mode of Action"). **UPHOLD® 360 SC** is geklassifiseer as 'n spinosien (IRAC subgroep 5) en methoxyfenozide (IRAC groep 18) insekdoder. Moenie **UPHOLD® 360 SC** meer as twee (2) maal op enige gewas per seisoen toedien nie. Gebruik insekdoders van 'n ander chemiese groep indien meer as twee (2) toedienings benodig word.

Enige insekpopulasie mag individue met 'n natuurlike weerstand teen **UPHOLD® 360 SC** of ander insekdoders binne dieselfde chemiese groep insluit. Indien **UPHOLD® 360 SC**, of insekdoders van dieselfde chemiese groep, herhaaldelik oor lang periodes, of teen opeenvolgende generasies van insekte aangewend word, sal die weerstandbiedende individue uiteindelik oorheersend in die populasie voorkom. Hierdie weerstandbiedende insekte sal nie deur **UPHOLD® 360 SC**, of ander insekdoders binne dieselfde chemiese groepe, beheer word nie. Plaaslike kundiges moet oor 'n weerstandstrategie of oor aanbevelings in die verband geraadpleeg word. Dit is bekend dat weerstand van insekte en myte teen insek- en mytdoders ook as gevolg van verhoogde metabolisme, verlaagde penetrasie of veranderde gedragspatroon kan ontstaan. Hierdie tipe weerstand hou nie verband met enige werkingswyse-klassifikasie nie, maar sal spesifiek wees tot 'n bepaalde middel of chemiese groepering. Ten spyte van bogenoemde, bly die afwisseling van middels tussen verskillende chemiese groepe steeds 'n lewensvatbare anti-weerstandstegniek.

Om insekweerstand te vertraag

- Vermoed die eksklusiewe gebruik van insekdoders van dieselfde subgroep.
- Moenie insekdoders teen laer dosisse, as wat op die etiket voorgeskryf word, aanwend nie.
- Rig toedienings verkieslik en waar enigsins moontlik, teen die jonger larwale- of die eierstadium van 'n betrokke plaag.
- Sluit ook ander bewese landboukundige of biologiese beheerpraktyke by geïntegreerde plaagbestuursprogramme in.

Geïntegreerde Plaagbestuursprogram (GPB)

UPHOLD® 360 SC kan in GPB programme van verskeie gewasse aanbeveel word, veral waar die voorkoms van plaeg gemonitor word en toedienings eers oorweeg word wanneer die ekonomiese drempelwaarde vir die plaeg op die betrokke gewas bereik is.

Behalwe dat **UPHOLD® 360 SC** die plaeg wat as voedselbron vir voordelige insekte dien, beheer, het **UPHOLD® 360 SC** wat binne GLP aangewend word, nie 'n beduidende nadelige invloed op parasitiese en predatoriese insekte en myte soos skilpadkewers, goudogies, roofwantse, predatoriese myte ens. nie. Alhoewel **UPHOLD® 360 SC** as "skadelik" vir parasiete geklassifiseer word, het veldstudies getoon dat populasies weer vinnig na bespuiting herstel.

Indien **UPHOLD® 360 SC** met ander insekdoders, wat die selektiwiteit van **UPHOLD® 360 SC** ten opsigte van die voordelige insekte benadeel, gemeng word, sal die voordeel van **UPHOLD® 360 SC** in die GPB program nie ten volle benut kan word nie.

MENGINSTRUKSIES:

Mengbaarheid met ander landbou chemiese produkte is nie getoets nie.

UPHOLD® 360 SC alleen:

Vul die spuitenk tot die helfte van die totale volume water benodig. Voeg die verlangde hoeveelheid **UPHOLD® 360 SC** in die spuitenk terwyl die water aanhoudend geroer word en die tenk verder tot die verlangde volume aangevul word. Handhaaf roering gedurende bespuiting om univorm verspreiding van die middel in die tenk te verseker. Vermoed die terugvloei van water of spuitmengsel na die waterbron.

Mengbaarheid, pH en tenkvermenging:

Moenie **UPHOLD® 360 SC** met modderige water vermeng nie. Alhoewel pH van spuitmengsels nie 'n invloed op die aanvanklike uitklopwerking van **UPHOLD® 360 SC** het nie, sal spuitmengsels met 'n lae pH waarde (< pH 5) die residuele werking van **UPHOLD® 360 SC** benadeel. Buffer-middels is oor die algemeen nie nodig nie. Versuringsmiddels of produkte wat die spuitmengsel tot onder pH 5 sal versuur (bv. Fosfonate, hoë konsentrasies van blaarvoedings, ens.) moet vermoed word of terug gebuffer word tot pH 5 - 8. Optimum werking van **UPHOLD® 360 SC** word by pH 5 - 8 verkry.

REËNVASTHEID: Vermoed toedienings indien reën binne 6 ure na toediening verwag word.

TOEDIENING

Deur gebruik te maak van behoorlike toedieningstegnieke word verseker dat deeglike bedekking verkry word en die regte dosisse van **UPHOLD® 360 SC** per ha toegedien word om optimum beheer van insekplae te verseker. Vir die doeltreffende toediening van **UPHOLD® 360 SC** en goeie bedekking van die gewas, moet die volgende faktore in aanmerking geneem word: Die regte grondspoed en kalibrasie, sowel as windspoed, plantgrootte en digtheid van die blaredek.

GRONDTOEDIENING

Goeie bedekking van plante is noodsaaklik om plaagbeheer te verseker. Vir algehele toediening gebruik 'n spuitvolume van 300 l spuitmengsel per hektaar. Vir rytoediening gebruik 'n spuitvolume van 3 l spuitmengsel per 100 m rylengte.

NOTA: MIELIES EN SUIKERMIELIES

Mielie stronkboorder (*B.fusca*)

Toedienings word gedoen op basis verkenningsresultate.

a) Mielies

Dien toe sodra 10% van die plante haelskadesimptome wys. Indien larwes groter as 10 mm is, of waar her-infestasië plaasgevind het, moet 'n opvolgtoediening 10-12 dae later gedoen word.

b) Suikermielies

Dien toe sodra eerste tekens van haelskadesimptome waargeneem word. Herhaal toediening elke 14 dae waar herinfestasië plaasvind. Moenie na pluimverskyning toedien nie.

Moet nie toedien op gewasse wat onder droogtestres verkeer nie. Sistemiese aktiwiteit word verminder by volwasse plante. Dien slegs toe op mielies en suikermielies wat aktief groei, tot voor pluim/aar in vlagblaar toegerol is. Behandel alvorens larwes die stam binnegedring het.

Reën of besproeiing binne 6 ure na toediening mag beheer nadelig beïnvloed, opvolgbespuitings mag nodig wees.

GEWAS/PLAAG	DOSIS/HEKTAAR	OPMERKINGS
<p>KOOLGEWASSE (Alle Koolgewasse) Ruitrugmot larwes <i>(Plutella xylostella)</i></p> <p>Amerikaanse kommandowurm <i>(Spodoptera frugiperda)</i></p>	<p>350-400 ml</p>	<p>Dien UPHOLD® 360 SC toe as 'n voldek bespuiting teen 'n minimum spuitvolume van 500 l/ha elke 7-10 dae.</p> <p>Bespuitings moet begin sodra die plaag waargeneem word, of dien toe as 'n opvolgbespuiting in 'n spuitprogram na insekdoders met 'n ander werkingswyse soos deur weerstandstrategie bepaal. Dien 'n minimum van twee agtereenvolgende UPHOLD® 360 SC bespuitings toe om goeie beheer te verseker. Gebruik hoër dosis wanneer 'n korrektiewe toediening gemaak word. Die laer dosis kan gebruik word vir opvolgbehandelings wanneer produk in 'n spuitprogram gebruik word.</p> <p>Gebruik die korter interval van 7 dae waar die populasiedruk hoog is of wanneer omgewingstoestande die plaag bevorder bv. gedurende somermaande.</p> <p>Vir die doeleindes van 'n weerstandstrategie moet UPHOLD® 360 SC in nie meer as twee (2) opeenvolgende bespuitings, of in totaal meer as vier maal per seisoen toegedien word nie. Wissel UPHOLD® 360 SC in die spuitprogram af met nie-verwante insekdoders vir minstens die duur van een generasie van die plaag.</p>

GEWAS/PLAAG	DOSIS/HEKTAAR	OPMERKINGS
<p>MIELIES, SUIKERMIELIES en SORGHUM Mielie Stronkboorder (<i>Busseola fusca</i>)</p> <p>Sorghum Stronkboorder (<i>Chilo partellus</i>)</p> <p>Amerikaanse kommandowurm (<i>Spodoptera frugiperda</i>)</p>	<p>400 ml</p> <p>Rybehandeling Grond toediening 4 ml UPHOLD 360 SC in 3 l water per 100 m rylengte</p>	<p>Moet nie toedien op gewasse onder droogtestres nie, dien UPHOLD® 360 SC toe op aktiefgroeïende plante tot voor die pluim in die vlagblaar van die mielies toegerol is. Behandel alvorens die larwes die stam binnedring, larwes wat reeds die stam binnegedring het sal nie beheer word nie.</p> <p>Gebruik 'n spuitvolume van 300 l/ha. Toediening moet geskied wanneer 10% plante bokhaelskade simptome vertoon. Met suikermielies moet toediening voorkomend geskied of sodra haelskade simptome waargeneem word. Indien larwes groter as 10 mm is en/of wanneer herinfestasië plaasvind, mag 'n tweede toediening 10 tot 12 dae later nodig wees.</p> <p>Larwes wat reeds die stam binnegedring het by toediening sal nie beheer word nie. Dien toe bo oor die kelke van plante en verseker goeie bedekking.</p> <p>Nota: Vir die doeleindes van 'n weerstandstrategie moet UPHOLD™ 360 SC in nie meer as twee (2) opeenvolgende bespuitings, of in totaal meer as drie (3) maal per seisoen toegedien word nie. Wissel UPHOLD® 360 SC in die spuitprogram af met nie-verwante insekdoders.</p>

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