

CHLORIFOS

BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY

CHLORIFOS
INSECTICIDE


Reg. No. L 10017, Act/Wet No. 36 of/van 1947 1:31/03/2016

An emulsifiable concentrate contact insecticide for the control of pests on crops as listed.

'n Emulgeerbare konsentraat kontak insekdoder vir die beheer van die plae op gewasse soos aangedui.

IRAC INSECTICIDE GROUP CODE	1B	IRAC INSEKDODERGROEPKODE
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ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL	
Chlorpyrifos (organophosphate) 480 g/l	Chlorpirifos (organofosfaat)

Registration Holder / Registrasiehouer
Meridian Agrochemical Company (Pty.) Ltd. / (Edms.) Bpk.
 Reg. No. 2000/010819/07
 P.O. Box / Posbus 436, Modderfontein, 1645, South Africa / Suid-Afrika

20ℓ



HARMFUL / SKADELIK














GEBRUIKSAANWYSINGS INGESLUIT
 Loco number
 Datum van vervaardiging

DIRECTIONS FOR USE ENCLOSED
 Batch Number
 Date of manufacture

WARNINGS

Allow the following number of days between last treatment and harvest or grazing (feeding) of the crop:

Apples (summer spray).....	40 days
Cabbage, Brussels sprouts, Cauliflower and Broccoli.....	7 days
Grain sorghum, Wheat and Maize.....	32 days
Grapes.....	28 days
Potatoes.....	14 days
Tomatoes.....	4 days

IMPORTANT: The recommended withholding period between last application and harvest meets local residue requirements, but may not meet export requirements.

- Handle with care.
- Poisonous when swallowed or inhaled or absorbed through the skin.
- **Toxic to fish, bees and wildlife. DO NOT** spray directly onto bees or when bees are active in crops. **DO NOT** spray into open blossoms.
- Store under lock and key in a dry, cool place at temperatures not exceeding 60 °C away from food, feeds, seed, fertilizers and sunlight.
- Keep out of reach of children, uninformed persons and animals.
- **Flammable** – Do not store or open container near open flame or sources of ignition.
- **Re-entry** – Do not enter the treated area until the spray deposit has dried, unless wearing protective clothing.
- **In case of poisoning, call a doctor and make this label available to him.**
- **Aerial application:** Notify all inhabitants in the immediate vicinity of the area to be treated and issue the necessary warnings. Do not spray over, or allow drift to contaminate, water or adjacent areas.
- **CHLORIFOS** has been tested on some of the most important commercial cultivars without any phytotoxic effects. More susceptible cultivars may be released in future which will need to be tested; for this apply **CHLORIFOS** to a limited test area before commercial applications are made.

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

- Do not inhale fumes or spray mist.
- Avoid skin and eye contact by wearing full protective clothing such as rubber gloves and boots and a face shield when handling the concentrate and dilute product.
- Wash with a non-abrasive soap and water after use and accidental skin contact. Also wash contaminated clothing.
- Do not eat, drink or smoke while mixing or applying the product, or before washing hands and face and changing clothes.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean the applicator after use. Dispose of the rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Triple rinse the empty container in the following manner: Invert the container over the spray tank or mixing tank and allow to drain for at least 30 seconds after flow has slowed down to a drip. Thereafter, rinse the empty container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsate to the contents of the spray tank or container used for drench application before destroying the container. Do not use the empty container for any other purpose.
- Destroy the empty container by perforation and flattening and dispose of it in a safe way.
- Prevent contamination of food, feeds, drinking water and eating utensils.

SYMPTOMS OF HUMAN POISONING

Symptoms could include headache, faintness, fatigue, giddiness, excessive sweating, nausea, abdominal pains, vomiting, diarrhoea, anxiety, and tightness of the chest, blurred vision, muscle twitching (beginning in the eyelids and the tip of the tongue), small pupils, respiratory distress, convulsions and coma.

FIRST AID

- **Inhalation:** Remove the patient from the source of poisoning to fresh air and keep him / her calm, warm and at rest. Seek medical assistance if necessary.
- **Skin contact:** Remove contaminated clothing and rinse contaminated body area thoroughly with plenty of soap and cold water. Do not rub the skin.
- **Eye contact:** Flush contamination out of eyes with clean running water for at least 15 – 20 minutes holding the eyelid/s open. **Seek medical assistance.**
- **Ingestion:** Do not induce vomiting, unless instructed to do so by a doctor or poison control centre. **Never give anything by mouth to an unconscious person.** If the victim is conscious and able, wash out the mouth with water. If breathing is difficult, give oxygen. If breathing stops, apply artificial respiration. **Seek medical assistance immediately.**

NOTE TO PHYSICIAN

Atropine (only by injection) is the preferable antidote. Oximes, such as 2-PAM / protopam, may be therapeutic if used early; however, use only in conjunction with atropine. If lavage is performed, suggest endotracheal and / or oesophageal control. The danger of lung aspiration must be weighed against the toxicity when considering emptying the stomach.

The dose and frequency of atropine varies with each patient, administer until atropinisation is achieved. Signs of atropinisation are dry, flushed skin, tachycardia and pulse rate of over 120 per minute.

Note: Morphine, phenothiazines, reserpine and theophylline are contraindicated in organophosphorous poisoning. Avoid aminoglycosides and succinylcholine.

Treat symptomatically and supportively.

RESISTANCE WARNING

For resistance management, **CHLORIFOS** is a group code 1B insecticide. Any insect population may contain individuals naturally resistant to **CHLORIFOS** and other group code 1B insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **CHLORIFOS** or any other group code 1B insecticide.

To delay insecticide resistance:

- Avoid the exclusive repeated use of insecticides from the same insecticide group code. Alternate or tank mix with registered products from different insecticide group codes.
- Integrate other control methods (chemical, cultural, biological) into insect control programmes.
- The choice of products to be used during one growing season should take the resistance strategy into consideration.

Since the occurrence of resistance cannot be forecast, users are advised to keep treated crops under close observation. If treatment is not effective following the use of **CHLORIFOS** as recommended, a resistant insect population may be present. If a resistant insect population is positively identified, consideration should be given to prompt use of an insecticide with a different mode of action for which there is no record of resistance to the relevant pest. For specific information on resistance management, contact the registration holder of this product.

MODE OF ACTION

Chlorpyrifos is a cholinesterase inhibitor, and is a non-systemic insecticide with contact, stomach, and respiratory action.

USE RESTRICTIONS

- Do not apply **CHLORIFOS** to any crop or situation not mentioned in this instruction leaflet.
- Only apply **CHLORIFOS** using an accurate and safe application technique.

- If **CHLORIFOS** is used in a tank mix with other recommended products, consideration should be given to the restrictions of those respective products.
- Do not apply this product in combination or tank mixture with any other product or agricultural remedy which is not specifically listed on this label. Meridian Agrochemical Company (Pty) Ltd accepts no responsibility for any negative effects experienced if the instructions on this label are not adhered to, unless a Meridian representative was consulted beforehand.

DIRECTIONS FOR USE

Use only as directed.

COMPATIBILITY

The compatibility of **CHLORIFOS** with other products depends on the formulations of the respective products as well as the quality of the spray water to be used. As formulations change from time to time it is recommended that a physical compatibility test be done prior to the tank mixture being made.

CHLORIFOS is compatible with light-narrow range mineral oils such as H&R crop oil. If **CHLORIFOS** is applied in combination with other products as indicated on this label, consideration must be given to the warnings, restrictions and application instructions indicated on the labels of those respective products.

APPLICATION METHODS

AERIAL APPLICATION

Aerial application may only be done by a registered aerial application operator using a registered and correctly calibrated aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Remedies). 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 be met:

Equipment

- Use suitable atomising equipment that will produce the desired droplet size and coverage of the target area and will ensure the minimum loss of product through drift.
- The operator must use a nozzle set-up that will produce a droplet spectrum with the lowest possible relative span.
- All nozzles and atomisers should be positioned within the inner 60-75% of the wingspan to prevent droplets from entering the wingtip vortices.

Application Parameters

- A minimum volume of 30 l spray mixture per ha is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy nor be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended.
- A droplet coverage of 25 – 35 droplets per square cm must be recovered at the target.
- A droplet spectrum with a VMD of 250 – 280 micron is recommended. Ensure that the production of fine droplets, with a VMD less than 150 microns, is restricted to a minimum.
- The height of the spray boom should be maintained at between 3 and 4m above the target.
- Do not spray when the aircraft is in a climb, at the top of a turn or during a dive or when banking.

Meteorological Conditions

- The difference between the wet and dry bulb readings, as determined using a whirling hygrometer, must not exceed 8 °C.
- Do not spray under turbulent, unstable conditions or 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) and/or high humidity conditions as this may cause:
 - Reduced efficacy due to suspension and evaporation of small droplets in the air (Which leads to inadequate coverage).
 - Damage to other sensitive crops and/or non-target areas through drifting of the spray cloud away from the targeted area.
- Do not spray when the wind speed exceeds 15 km per hour.

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 and that the relevant data will be compiled in a logbook and kept for future reference.**

RECOMMENDATIONS

Dosage rates indicated per 100 litres water are for high volume spraying.

CROP	DOSAGE RATE	REMARKS
Apples and Pears Pernicious scale	100 – 200 ml + 500 ml H&R crop oil	Dormant application only <u>Pernicious scale:</u> Apply at least one high volume spray at the lower dose rate before pruning. <u>Pernicious scale:</u> Apply at least two high volume sprays. First spray approximately 3 – 4 weeks before bud swell / green tip. Second spray at bud swell / green tip. Use the higher dosage rate where more than 1% fruit infestation was experienced in the previous season. CHLORIFOS is compatible with mineral oils used against delayed foliation.
Cabbage, Cauliflower, Broccoli and Brussels sprouts Aphids (<i>Brevicoryne brassicae</i>).	50 ml / 100 l	Apply CHLORIFOS when the pest is first noticed. Ensure thorough coverage of the plant. Do not apply less than 500 l spray mix / ha. When the aphids are already in the cabbage head, or in the clusters of leaves of the brussels sprouts, variable control can be expected. The addition of a suitable wetter such as Wet-All is recommended. Re-apply when necessary. This application should also control Diamond back moth and Greater cabbage moth if present at the time of the application.
Maize and Grain sorghum Black Maize Beetle	Row application: 10 ml / 100 m row length in 3 l water Overall application: 1 l / ha	Spray into the planting furrow, just behind the planter shoe, before closing the furrow. Apply in 200 l water as an overall application at planting and mix with the soil to a depth of 100 mm using a suitable implement (such as a disc or Fieldspan). Note: Less effective control can be expected under dry soil conditions.
Maize Stalkborer	3.5 ml / 100 m row length in 3 l water	Ground application: Early planting: Apply when 5% of the plants are infested with eggs, or when 10% of the plants show "shot hole" damage. If the control of this infestation is delayed too long, the larvae may be protected inside the stalk and poor results can be expected. Late planting: Apply the first spray 30 – 35 days after planting and repeat 14 days later.

		Only apply up to the stage before the tassels are enclosed by the flag leaf.
Peaches, Plums and Apricots Pernicious scale (White Peach Scale)	100 ml + 500 ml of H&R crop oil	Dormant application only. Apply at least 2 high volume sprays at 4 – 6 week intervals during the dormant stage of trees. (One before, and one after pruning at bud swell).
Potatoes Black maize beetle	Programme application: Pre-plant: 15 ml / 100 m row length in 3 l water Post plant 500 ml / ha	Apply as a pre-plant treatment in a 100 mm band just before closing the furrows. Apply 6 weeks later in at least 500 l water / ha and increase the volume of water with the increase in crop density. Repeat at intervals of 2 – 3 weeks. Use drop arms and ensure good ground coverage. Rain or ridging is essential for good control.
Table grapes Mealy bug	200 ml (2 applications)	Dormant spray only: Apply two sprays in the late winter dormant period. The first spray should be applied approximately 6 weeks before bud burst. The second spray should be applied a minimum of 7 days after the first spray but before any signs of green material become evident (CHLORIFOS is phytotoxic to young vine leaves). Method of application: Use only hand gun type high volume sprays. The vines should be individually drenched down to ground level with a minimum of 4 l of spray mix per vine. Follow up sprays: In certain vineyards, high mealy bug pressure and poor application might necessitate follow up sprays in the summer. As soon as mealy bug is observed, apply a suitably registered product. Where possible, apply a spot treatment only.
Tomatoes American bollworm (<i>Heliothis armigera</i>)	150 - 200 ml / 100 l	Apply as a full cover spray and repeat every 7 days. When a heavy infestation occurs, 200 ml / 100 l water is recommended. Repeat the application at 7 day intervals. The above spray programme for American bollworm should also control Thrips.
Wheat Russian Wheat aphid (<i>Diuraphis noxia</i>)	750 ml / ha 1 l / ha	Ground application: Apply as an overall spray when the first signs of infestation are observed. Repeat 8 – 10 days later, if necessary. Apply in 200 – 300 l water / ha depending on the size of the plants. In the event of high aphid populations, apply 1 l / ha when the first signs of infestation are observed. Repeat the application 8 – 10 days later, if necessary, using a lower dosage rate of 750 ml / ha. Aerial application:

<p>Common green wheat aphid (<i>Schizaphis graminum</i>)</p>	<p>0.75 – 1 ℓ / ha</p> <p>750 ml / ha</p>	<p>Using 1 ℓ / ha, start spraying when the first signs of infestation are observed. Repeat the application 8 – 10 days later, if necessary, using a lower dosage rate of 750 ml / ha. Apply in at least 30 ℓ Repeat the application 8 – 10 days later, if necessary, using a lower dosage rate of 750 ml / ha. Apply in at least 30 ℓ water / ha.</p> <p>Note These applications may also control other aphid species and suppress black maize beetle if present.</p> <p>Ground application: Apply in a minimum of 200 ℓ water / ha. Repeat 10 – 14 days later if necessary.</p>
<p>Wine grapes Mealy Bug (low infestation pressure)</p> <p>Mealy bug (high infestation pressure)</p>	<p>100 ml / 100 ℓ (2 applications)</p> <p>200 ml / 100 ℓ (2 applications)</p>	<p>Dormant spray only: Apply 2 applications at two week intervals before bud burst. Apply as a high volume application in order to ensure optimum coverage of the vines.</p> <p>This application should also control cocktail ants and suppress Argentine ants if present at the time of the application (at the lower dosage: suppression only).</p>
<p>Mealy bug</p>	<p>75 ml (36 g ai / 100 ℓ)</p>	<p>Summer spray only: Mealybug: Apply when the first movement of mealybug is noticed. Apply as a high volume application, ensuring thorough coverage of the vines. Repeat 21 days later if necessary.</p> <p>Do not apply during bud swell or within 4 weeks after budding as CHLORIFOS can be phytotoxic to young vine leaves.</p>

ACKNOWLEDGEMENT OF TRADEMARKS

H&R Crop oil (L 6802)

H&R South Africa Sales (Pty) Ltd.

WAARSKUWINGS

Laat die volgende aantal dae toe tussen laaste toediening en oes of beweiding (voer) van die gewas:

Appels (somer spuit).....	40 days
Kool, Brusselse spruite, Blomkool en Brokkoli.....	7 days
Graansorghum, Koring en Mielies.....	32 days
Druive.....	28 days
Aartappels.....	14 days
Tamaties.....	4 days

BELANGRIK: Die aanbevole onthoudingsperiode tussen laaste toediening en oes voldoen aan die vereistes vir plaaslike residuvlakke, maar mag dalk nie voldoen aan vereistes vir uitvoer nie.

- Hanteer versigtig.
- Giftig indien ingesluk of ingeasem of deur die vel geabsorbeer word.
- **Giftig vir visse, bye en wild. Moenie** direk op bye spuit of wanneer bye aktief is in gewasse nie. **MOENIE** binne in oop bloeisels spuit nie.
- Berg agter slot en grendel in 'n droë, koel plek met temperature nie meer as 60 ° C, weg van voedsel, voer, saad, kunsmis en sonlig.
- Hou buite bereik van kinders, oningeligte persone en diere.
- **Vlambaar** – Moenie houer stoor of oop maak naby oop vlamme of bronne van ontbranding nie.
- **Herbetreding** - Moenie die behandelde area betree alvorens die spuitneerslag droog is nie, tensy beskermende klere gedra word.
- **In die geval van vergiftiging ontbied 'n geneesheer en toon hierdie etiket aan hom.**
- **Lugtoediening:** Stel alle inwoners in die onmiddellike omgewing van die gebied wat gespuit word in kennis en reik die nodige waarskuwings uit. Moenie oor water of aangrensende gebiede spuit, of toelaat dat spuitnewel wegdrywing dit besoedel nie.
- **CHLORIFOS** is getoets op 'n paar van die belangrikste kommersiële kultivars sonder enige nadelige effekte. Meer vatbare kultivars kan in die toekoms vrygestel word wat sal getoets moet word; in hierdie instansies dien **CHLORIFOS** toe op 'n beperkte toetsarea voordat groot areas behandel word.

Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie. Die werking en doeltreffendheid daarvan kan beïnvloed word deur faktore soos abnormale grond-, klimaats- en bergingstoestande, kwaliteit van die verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui word nie en die voorkoms van weerstand van die plaag teen die betrokke middel sowel as die tyd, metode en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei en die omgewing, of nadelige invloed op mens of dier, of vir 'n gebrek aan prestasie van die betrokke middel as gevolg van 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

- Moet nie dampe of spuitnewel inasem nie.
- Vermyn vel en oogkontak deur die dra van beskermende klere soos rubberhandskoene en stewels en 'n gesigskerm wanneer die konsentraat hanteer en produk verdun word.
- Was met 'n nie-skurende seep en water na gebruik en na toevallige velkontak. Was ook besoedelde klere.
- Moet nie eet, drink of rook tydens vermenging of toediening van die produk of voordat hande en gesig gewas en skoon klere aangetrek is nie.
- Voorkom wegdrywing van spuitnewel na ander gewasse, weiding, riviere, damme en areas wat nie onder behandeling is nie.
- Maak toedieningsapparaat skoon na gebruik. Raak ontslae van die spoelwater waar dit nie gewasse, weiding, riviere, damme en boorgate sal besoedel nie.
- Spoel die leë houer 3 keer op die volgende wyse: Keer die houer om oor die spuittenk of mengbak en dreineer vir minstens 30 sekondes nadat die vloeï afgeneem het tot 'n drup. Spoel daarna die leë houer drie keer uit met 'n volume water gelykstaande aan 'n minimum van 10% van die houer. Gooi die spoelwater by die inhoud van die spuittenk of houer gebruik word vir deurdrenking toedienings voordat die houer vernietig word. Moet nie die leë houer vir enige ander doel gebruik nie.

- Vernietig die leë houer deur gate in te maak en plat te druk en doen weg daarmee op 'n veilige manier.
- Voorkom besoedeling van voedsel, voer, drinkwater en eetgerei.

SIMPTOME VAN VERGIFTIGING

Simptome kan insluit hoofpyn, swakte, moegheid, duiseligheid, oormatige sweet, mislikheid, buikpyn, braking, diarree, angs, en beklemde bors, versteurde gesigsvermoë, spiertrekkings (beginnende by die ooglede en die punt van die tong), klein pupille, asemhalingsnood, stuiptrekkings en koma.

NOODHULP

- **Inaseming:** Verwyder die pasiënt van die bron van vergiftiging na vars lug en hou hom / haar kalm, warm en rustig. Kry mediese hulp indien nodig.
- **Velkontak:** Verwyder besoedelde klere en spoel die besmette liggaamsdele deeglik met baie seep en koue water af. Moet nie die vel vryf nie.
- **Oogkontak:** Spoel gekontamineerde oë uit met skoon lopende water vir ten minste 15 – 20 minute terwyl ooglid / e oop is. **Kry mediese hulp.**
- **Ingesluk:** Moet nie braking veroorsaak nie, tensy opdrag gegee om dit te doen deur 'n dokter of gifsentrum. **Moet nooit iets per mond aan 'n bewustelose persoon gee nie.** As die slagoffer bewussyn het en in staat is, was uit die mond met water. Indien asemhaling moeilik is, gee suurstof. Indien asemhaling stop, pas toe kunsmatige asemhaling. **Soek onmiddellik mediese hulp.**

NOTA AAN GENEESHEER

Atropien (slegs deur infeksie) is die aanbevole teenmiddel. Oksieme, soos 2-PAM / Protopam, kan terapeutiese wees as vroeg gebruik word; egter slegs gebruik in samewerking met atropien. As maagspoeling uitgevoer word, stel endotracheale en / of slukderm beheer voor. Die gevaar van long aspirasie moet opgeweeg word teen die toksisiteit by die oorweging van die maag leeg te maak. Die dosis en frekwensie van atropien wissel met elke pasiënt, administreer totdat atropinisasie bereik word. Eerste tekens van atropinisasie is droë, gloeiende vel, tagikardie en pols van hoër as 120 per minuut.

Let wel: Morfien, fenotiasiene, reserpien en teofillien is teenaangedui in organofosfaat vergiftiging. Vermoed aminoglikosiede en suksinielcholien. Behandel simptome en ondersteunend.

WEERSTANDSWAARSKUWING

Vir weerstandsbestuur, **CHLORIFOS** is 'n groeppode 1B insekdoder. Enige insekpopulasie mag individue insluit wat 'n natuurlike weerstand teen **CHLORIFOS** of enige ander groeppode 1B insekdoder het. Die weerstandbiedende individue kan uiteindelik die insekpopulasie oorheers. Indien hierdie insekdoders herhaaldelik aangewend word. Hierdie weerstandbiedende insekte sal waarskynlik nie deur **CHLORIFOS** of enige ander groeppode 1B insekdoder word nie.

Om weerstand teen insekdoders te vertraag:

- Vermoed die eksklusiewe herhaaldelike gebruik van insekdoders met dieselfde groeppode.
- Wissel af met of gebruik tenkengsels van produkte in verskillende insekdoder groeppodes.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in insekdoder programme.
- Die keuse van produkte wat gebruik word tydens een groeiseisoen moet die weerstand strategie in ag neem.

Aangesien die voorkoms van weerstand nie kan voorspel word nie, word gebruikers aangeraai om behandelde gewasse noukeurig dop te hou. As behandeling nie suksesvol is na die gebruik van **CHLORIFOS** soos aanbeveel, mag 'n weerstandbiedende insekte bevolking teenwoordig wees. As 'n weerstandige insekpopulasie positief geïdentifiseer word, moet oorweging geskenk word aan die gebruik van 'n insekdoder vinnig met 'n ander metode van werking waarvoor daar geen rekord van weerstand teen die betrokke plaag. Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk.

MODE VAN AKSIE

Chlorpirifos is 'n cholinesterase inhibeerder, en is 'n nie-sistemiese insekdoder met kontak, maag, en respiratoriese aksie.

GEBRUIKSBEPERKINGS

- Moenie **CHLORIFOS** toedien op enige gewas of situasie wat nie op hierdie etiket verskyn nie.
- Dien slegs **CHLORIFOS** met 'n akkurate en veilige toedieningsmetode toe.
- As **CHLORIFOS** gebruik word in 'n tenkmengsel met ander aanbevole produkte, moet oorweging geskenk word aan die beperkings van die betrokke produk.
- Moet nie hierdie produk in kombinasie of tenkmengsel saam met enige ander produk of landboumiddel gebruik word, wat nie spesifiek op hierdie etiket gelyk is nie Meridian Agrochemical Company (Pty) Ltd aanvaar geen verantwoordelikheid vir enige negatiewe gevolge ervaar indien die instruksies op die etiket nie nagekom word nie, tensy 'n Meridian verteenwoordiger vooraf geraadpleeg is nie.

GEBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

VERENIGBAARHEID

Die verenigbaarheid van **CHLORIFOS** met ander produkte hang af van die formulering van die betrokke produkte asook die kwaliteit van die spuitwater wat gebruik word. Soos formulering verander van tyd tot tyd word daar aanbeveel dat 'n fisiese verenigbaarheidstoets gedoen word voor die tenkmengsel gemaak word. **CHLORIFOS** is verenigbaar met ligte smalbestek minerale olies soos H & R crop olie. As **CHLORIFOS** in kombinasie toegedien word met ander produkte soos aangedui op die etiket, moet oorweging geskenk word aan die waarskuwings, beperkings en toedienings instruksies aangedui op die etikette van die betrokke produk.

TOEDIENINGSMETODES

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 te beperk. Dit is dus noodsaaklik om aan die volgende vereistes te voldoen:

Toerusting

- Gebruik geskikte atomiseringsapparaat wat die vereiste druppelgrootte en bedekking van die teiken sal produseer en sal die minste verlies van produk deur wegdrywing veroorsaak.
- Die operateur moet 'n spuitkop stelsel opstel wat 'n druppelspektrum met die kleinste moontlike relatiewe span sal produseer.
- Al die spuitkoppe en atomiseerders moet in die binneste 60-75% van die vlerkspan geplaas word om te verhoed dat druppels binne-in die vlerkpuntvorteks beweeg.

Toedieningsvereistes

- 'n Minimum volume van 30 l spuitmengsel per ha word aanbeveel. Aangesien hierdie produk nie teen 'n verlaagde volume getoets is nie, kan die registrasiehouer nie effektiwiteit waarborg, of verantwoordelik vir enige nadelige effekte gehou word indien hierdie produk toegedien word nie teen 'n laer volume as hierbo aanbeveel.
- 'n Druppelbedekking van 25 - 35 druppels per vierkante cm moet op die teikenarea herwin word.
- 'n Druppelspektrum met 'n VMD van 250 - 280 mikron word aanbeveel. Verseker dat die produksie van fyn druppels, die wat kleiner as 150 mikrons word tot 'n minimum te beperk.
- Die hoogte van die spuitbalk moet op 3 tot 4 m bo die teiken gehandhaaf word.
- Moet nie spuit wanneer die vliegtuig besig is om te klim, tydens die top van 'n beurt of tydens 'n duik of terwyl dit uitklim nie.

Meteorologiese toestande

- Die verskil tussen die nat- en droëbollesing, soos bepaal met behulp van 'n swaaihygrometer, moet nie meer as 8 ° C wees nie.
- Moenie toedien tydens turbulente, onstabiele en droë toestande of gedurende die hitte van die dag wanneer stygende temperature en valstrome voorkom nie.
- Moenie toedien onder temperatuur inversie toestande (deur bo of binne die inversie laag te spuit) en / of hoë humiditeit toestande aangesien dit kan lei tot:
 - i. Verlaagde effektiwiteit a.g.v. suspensie en verdamping van klein druppels in die lug

- (wat lei tot onvoldoende bedekking op teiken).
- ii. Skade aan ander sensitiewe gewasse en / of nie-teiken areas as dryf van die spuitwolk weg van die doelgebied.
 - Moet nie spuit wanneer die windspoed 15 km per uur oorskry nie.

Algemeen

- Sorg dat die lande akkuraat gemerk is en dat die spuitoperator presies weet watter lande bespuit moet word.
- **Verkry versekering van die lugbespuitingsoperator dat aan bogenoemde vereistes voldoen sal word en dat die betrokke data sal saamgestel word in 'n logboek vir toekomstige verwysing.**

AANBEVELINGS

Hoeveelhede aangedui per 100 liter water is bedoel vir hoë volume bespuiting.

GEWAS	DOSIS	OPMERKINGS
Appels and Pere Verderflike dopluis	100 – 200 ml + 500 ml H&R crop oil	Dormante toediening alleenlik <u>Verderflike dopluis:</u> Dien toe ten minste een hoë volume bespuiting teen die laer dosis voor snoei. <u>Verderflike dopluis:</u> Dien toe ten minste twee hoë volume bespuitings. Eerste spuit ongeveer 3 - 4 weke voor knopswel / groenpunt. Tweede bespuiting met ogieswel / groenpunt. Gebruik die hoër dosis waar meer as 1% vrugbesmetting voorgekom het in die vorige seisoen. CHLORIFOS is verenigbaar met minerale olies wat gebruik word teen vertraagde bot
Kool, Blomkool, Brokkoli en Brusselse spruite Plantluis (<i>Brevicoryne brassicae</i>).	50 ml / 100 l	Dien CHLORIFOS toe wanneer die plaag opgemerk word. Verseker deeglike bedekking van die plant. Moet nie minder as 500 l spuitmengsel / ha gebruik nie. Wanneer die plantluis reeds in die kool-kop, of in die trosse van die blare van die Brusselse spruite is, kan wisselvallige beheer verwag word. Die byvoeging van 'n geskikte benatter soos Wet-All word aanbeveel. Opvolg toediening moet gedoen word wanneer dit nodig is. Hierdie toediening sal ook Ruitrugmot en Groter kool mot beheer indien teenwoordig ten tye van die bespuiting.
Mielies en Graan Sorghum Swartmieliekewer	Ry toediening: 10 ml / 100 m rylengte in 3 l water Algehele toediening: 1 l / ha	Spuit in die plantvoor, net agter die planter skaar, voor die toemaak van die voor. Dien toe in 200 l water as 'n algehele bespuiting tydens plant en meng met die grond tot 'n diepte van 100 mm met behulp van 'n geskikte implement (soos 'n Skotteleg of Fieldspan). Let wel: Minder effektiewe beheer kan onder droë grondtoestande verwag word.
Mielies		

Stronkboorder	3.5 m ℓ / 100 m rylengte in 3 ℓ water	<p>Grondtoediening: Vroeë aanplantings: Dien toe sodra 5% van die plante met eiers besmet is, of wanneer 10% van die plante "haelskade" wys. As die beheer van die infestasië te lank vertraag word, mag die larwes binne die steel beskerm word en swak resultate kan verwag word.</p> <p>Laat aanplantings: Dien die eerste bespuiting toe 30 - 35 dae na plant en herhaal 14 dae later.</p> <p>Dien toe slegs tot en met die stadium voor die tassels omring is deur die vlagblaar.</p>
Perskes, Pruime en Appelkose Verderflike Dopluis (Wit Perske Dopluis)	100 mℓ + 500 mℓ van H&R crop oil	<p>Dormante toediening alleenlik: Dien ten minste 2 hoë volume bespuitings toe met 4-6 weke tussenposes gedurende die dormante stadium van bome. (Een voor, en een na snoei by knopswel).</p>
Aartappels Swartmieliekewer	<p>Program toediening: Voorplant: 15 mℓ / 100 m rylengte in 3 ℓ water</p> <p>Na-plant 500 mℓ / ha</p>	<p>Dien toe as 'n voorplant behandeling in 'n 100 mm-band net voor die toemaak van die vore.</p> <p>Dien 6 weke later toe in ten minste 500 ℓ water / ha en verhoog die volume water met die toename in gewasdigtheid. Herhaal met intervalle van 2 - 3 weke. Gebruik valarms en verseker goeie grond dekking. Reën of operd is noodsaaklik vir goeie beheer.</p>
Tafeldruiwe Witluis	200 mℓ (2 toedienings)	<p>Dormante toediening alleenlik: Dien twee bespuitings in die laat winter dormant tydperk toe. Die eerste bespuiting moet ongeveer 6 weke voor bot toegedien word. Die tweede bespuiting moet 'n minimum van 7 dae na die eerste bespuiting toegedien word maar voordat enige groen materiaal duidelik sigbaar is (CHLOROFIS is fitotoksies vir jong wingerd blare).</p> <p>Metode van toediening: Gebruik slegs "hand gun" tipes hoë volume bespuitings. Die stokke behoort individueel deurdrenk te word tot op grondvlak met 'n minimum van 4 ℓ van spuitmengsel per stok.</p> <p>Opvolg bespuitings: In sekere wingerde, hoë witluis druk en swak toediening kan opvolg bespuitings in die somer noodsaak. Sodra witluis waargeneem word, dien toe 'n toepaslike geregistreerde produk. Waar moontlik, dien toe slegs 'n kolbehandeling.</p>
Tamaties Amerikaanse Bolwurm (<i>Heliothis armigera</i>)	150 - 200 mℓ / 100 ℓ	<p>Dien toe as 'n volle dekbespuiting en herhaal elke 7 dae. Wanneer 'n swaar besmetting voorkom, word 200 ml / 100 ℓ water aanbeveel. Herhaal die toediening elke 7 dae. Die bogenoemde spuitprogram vir Amerikaanse bolwurm sal ook Blaaspoetjies beheer.</p>
Koring Russiese koringluis(<i>Diuraphis noxia</i>)	750 mℓ / ha	<p>Grondtoediening: Dien toe as 'n algehele bespuiting wanneer die eerste tekens van besmetting waargeneem</p>

<p>Gewone groen Koringluis (<i>Schizaphis graminum</i>)</p>	<p>1 ℓ / ha</p> <p>0.75 – 1 ℓ / ha</p> <p>750 ml / ha</p>	<p>word. Herhaal 8-10 dae later, indien nodig. Dien toe in 200 - 300 ℓ water / ha afhangende van die grootte van die plante.</p> <p>In die geval van hoë plantluis bevolkings, dien toe 1 ℓ / ha sodra die eerste tekens van besmetting waargeneem word. Herhaal die toediening 8-10 dae later, indien nodig, met behulp van 'n laer dosis van 750 ml / ha.</p> <p>Lugtoediening: Wanneer 1 ℓ / ha gebruik word, begin spuit wanneer die eerste tekens van besmetting waargeneem word. Herhaal die toediening 8-10 dae later, indien nodig, met behulp van 'n laer dosis van 750 ml / ha. Herhaal die toediening 8-10 dae later, indien nodig, met behulp van 'n laer dosis van 750 ml / ha. Dien toe in ten minste 30 ℓ water / ha.</p> <p>Let wel: Hierdie toediening kan ook ander plantluis spesies beheer en swartmieliekewer onderdruk indien teenwoordig.</p> <p>Grondtoediening: Dien toe in 'n minimum van 200 ℓ water / ha. Herhaal 10 - 14 dae later indien nodig.</p>
<p>Wyn duiwe Witluis (lae infestasië druk)</p> <p>Witluis (hoë infestasië druk)</p>	<p>100 ml / 100 ℓ (2 toedienings)</p> <p>200 ml / 100 ℓ (2 toedienings)</p>	<p>Dormante toediening alleenlik: Dien 2 toedienings toe met twee week intervalle voor bot. Dien toe as 'n hoë volume bespuiting ten einde optimum bedekking van die wingerde te verseker.</p> <p>Hierdie toediening moet ook wipstertmiere beheer en Argentynse miere onderdruk indien teenwoordig ten tye van die bespuiting (by die laer dosis: net onderdrukking).</p>
<p>Witluis</p>	<p>75 ml (36 g / 100 ℓ)</p>	<p>Somer spuit alleenlik: Witluis: Dien toe wanneer die eerste beweging van witluis waargeneem word. Dien toe as 'n hoë volume bespuiting, verseker deeglike bedekking van die wingerde. Herhaal 21 dae later indien nodig. Moenie toedien tydens ogieswel en binne 4 weke na bot nie, omdat CHLORIFOS fitotoksies vir jong wingerd blare kan wees.</p>

ERKENNING VAN HANDELSMERKE
H&R Crop oil (L 6802)

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