



# KABUTO

BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY

**KABUTO**

INSECTICIDE

Reg. No. L8604, Act/Wet No. 36 of/van 1947

1:02/12/2011

A suspension concentrate contact and stomach insecticide with insect growth regulating activity for the control of various insects at the larval stages.

'n Suspensiekonsentraat kontak- en maaginsekddoder met insekgroei-regulerende eienskappe vir die beheer van verskeie insekte by die larwale stadium.

IRAC INSECTICIDE GROUP CODE 16 IRAC INSEKDODERGROEPKODE

**ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL**

Buprofezin (thiadiazin) 500 g/ℓ Buprofesin (tiadiasien)

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

5ℓ

UN Number: 3082

DIRECTIONS FOR USE ENCLOSED  
REFER TO DETAILS AS PRINTED  
ON CONTAINER/ BAG

Batch Number  
Date of manufacture

Meridian agritech

CAUTION / VERSIGTIG

A row of four GHS hazard pictograms: a skull and crossbones (toxic), a flame (flammable), a hand with a drop (corrosive), and a dead tree (danger for the environment).

An icon of a fly, indicating the target pest for the insecticide.

## **WARNINGS**

Allow the following number of days between last application and harvest:

Citrus.....	45 days
Avocados.....	160 days

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

- Poisonous when ingested, inhaled or absorbed through skin.
- May irritate eyes.
- Store in a cool place, away from food, feeds and seed.
- Keep out of reach of children, uninformed persons and animals.
- Do not use this product in any way contrary to the directions on this label.
- **Re-entry interval:** Do not enter treated area until the spray deposit has dried unless wearing protective clothing.
- **KABUTO** has been tested on the most important commercial cultivars without any phytotoxic effects. More susceptible cultivars may be released in future which need to be tested; for this apply **KABUTO** 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 efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal climatic and storage conditions; compatibility with other substances not indicated on the label and the occurrence of resistance of insects against the remedy concerned as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or for lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.**

## **PRECAUTIONS**

- Avoid any inhalation of spray mist and contact with concentrate.
- Wear protective clothing – overalls, rubber boots, face-shield and gloves and wash contaminated clothing daily.
- Wash with soap and water after use.
- In case of contact with eyes, wash immediately with plenty of clean water and seek medical advice.
- Do not eat, drink or smoke during handling, application and before washing.
- Clean applicator after use. Dispose of wash water where no contamination of dams, rivers, grazing or crops can occur.
- Prevent spray from drifting to other crops, grazing and dams.
- Triple rinse 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 10% of that of the container. Add the rinsate to the contents of the spray tank before destroying the container.
- Destroy empty container by perforation and do not use it for any other purpose.
- Prevent contamination of food, feeds, eating utensils and drinking water.

## **USE RESTRICTIONS**

Thorough spray coverage of the tree with **KABUTO** is very important because effective control is dependent on scale crawlers coming into contact with residues of the product wherever they may move or settle on the tree. It is highly desirable to use this treatment in conjunction with good ant control.

**KABUTO** programmes must commence early in the season on harvested trees due to:

- the absence of fruit on the tree improves penetration of the spray mixture.
- crawler movement being more uniform once post-winter temperatures start increasing.
- potential early crawler movements which can cause pockmarks on developing fruit.

It is possible that the 0.25% - 0.5% narrow range distillation oil additive may have a variably detrimental impact on yield when applied as indicated. To minimise this possibility, restrict application to healthy, well irrigated orchards and do not spray if the temperature is above 30 °C. The quantity of oil used depends on the situation. For more detail consult your local field representative.

## **RESISTANCE WARNING**

**KABUTO** is a group code 16 insecticide. Any insect population may contain individuals naturally resistant to **KABUTO** and other group code 16 insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. The resistant insects may not be controlled by **KABUTO** or any other group code 16 insecticide.

### **To delay insecticide resistance:**

- Avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate or tank mix with products from different insecticide group codes.
- Integrate other control methods (chemical, biological, cultural) in an insecticide control programme.

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 **KABUTO** as recommended, a resistant population may be present. If a resistant 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.

## **DIRECTIONS FOR USE**

**Use only as indicated.**

### **COMPATIBILITY**

**KABUTO** is compatible with narrow range distillation oils and most non-ionic surfactants.

### **MIXING INSTRUCTIONS**

Half fill the spray tank with clean water. Add the required quantity of **KABUTO** while maintaining constant agitation. Fill the spray tank with water as well as the amount of oil needed to the required level while maintaining agitation to ensure thorough mixing of the spray mixture before spraying commences. Maintain agitation while spraying. **Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight.** Ensure that agitation takes place for a few minutes prior to commencement of spraying after normal operational stops e.g., Lunch break. Spraying equipment must be thoroughly flushed out at the end of the spraying operation.

## **RECOMMENDATIONS**

SITUATION	DOSAGE RATE / 100 ℥ WATER	REMARKS
<b>AVOCADOES</b> Heart-shaped scale  Apply when heavy infestations of heart-shaped scale occur on the underside of the leaves.	30 mL <b>KABUTO</b> plus 50 mL non-ionic surfactant (0.05% solution)	Apply as a high volume, full cover spray just before active 1 <sup>st</sup> generation crawlers start moving. This usually occurs around end October when 80% of females have distinct yolk-sacks. Adequate coverage of the inside of the tree is critical for effective scale control.
<b>CITRUS</b> Red scale  "Green and Orange Situation" Red scale under commercial control and situations where a single summer oil application on its own in the period 9 – 11 weeks after 100% petal fall will not bring the insect under control.	30 mL <b>KABUTO</b> plus 250 – 500 mL light narrow range distillation oil (0.25% - 0.5%) plus 10 mL non-ionic surfactant.	Timing is critical and application must take place at the start of the specific crawler movement. Repeat application 28 days after the first spray.  ALWAYS APPLY TWO SPRAYS.
<b>CITRUS</b> Mealybug	30 mL <b>KABUTO</b> plus 250 – 500 mL light narrow range distillation oil (0.25% - 0.5%) plus 10 mL non-ionic surfactant.	Apply at onset of first crawler movement when mealybug infestation occurs and before the calyx-end closure. Repeat application 28 days later in cases of heavy infestation.  If application is made to control <b>mealybug alone</b> (no scale) then the oil may be omitted.

#### **Remarks**

- Crawler movement can occur during mild winters, in which case **KABUTO** must be applied immediately and repeated 28 days later. In such a situation, crawler movement could occur again later in the season and can then be controlled by adding oil to the spray mixture.
- Determination of the onset of crawler movement can be facilitated by use of pheromone traps to monitor male flight peaks and physical inspection for crawler movement.
- Crawler movement must be constantly monitored. The population pressure will determine the number of applications required.

## WAARSKUWINGS

### Laat die volgende aantal dae toe tussen laaste toediening en oes:

Sitrus.....	.....45 dae
Avokado's.....	.....160 dae

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

- Giftig wanneer ingeneem, ingeasem of deur vel geabsorbeer word.
- Mag oë irriteer.
- Berg in 'n koel plek, weg van voedsel, voer en saad.
- Hou buite bereik van kinders, oningesigte persone en diere.
- **Herbetreding:** Moet nie behandelde gebied betree alvorens die sputneerslag droog is nie, tensy beskermende oorklere gedra word.
- Moet nie produk op enige ander manier gebruik as wat die aanbevelings op hierdie etiket aandui nie.
- **KABUTO** is sonder enige fitotoksieseitskade op die mees belangrikste kommersiële kultivars getoets. Meer vatbare kultivars mag in die toekoms vrygestel word wat eers getoets moet word; hiervoor moet **KABUTO** eers op 'n klein toetsoppervlakte aangewend word, alvorens groot kommersiële bespuitings gemaak 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 aangesien die werking en effek daarvan beïnvloed kan word deur faktore soos abnormal grond-, klimaats-en bergingstoestande, verenigbaarheid met ander stowwe wat nie op die etiket aangedui is nie en die voorkoms van weerstand van die plae teen die betrokke middel sowel as die metode, tyd en akkuraatheid van toediening. Die registrasiehouer aanvaar geen 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 versuim van die gebruiker om die etiketaanwysings na te volg of die ontstaan van toestande wat kon gewees het nie in terme van die registrasie voorsien. Raadpleeg die verskaffer in die geval van enige onsekerheid.

## VOORSORGMAATREËLS

- Vermy enige inaseming van die sputnewel en kontak met die konsentraat.
- Dra beskermende klere - oorpak, rubberstewels, gesigskild en handskoene en was besoedelde klere daagliks.
- Was met seep en water na gebruik.
- In die geval van kontak met oë, was onmiddellik met baie skoon water en kry mediese advies.
- Moet nie eet, drink of rook tydens hantering, toediening en voordat gewas is nie.
- Maak toedieningsapparaat deeglik skoon na gebruik. Raak ontslae van waswater waar dit nie damme, riviere, weiding of gewasse sal besoedel nie.
- Verhoed wegdrywing van die sputtstof na ander gewasse, weiding en damme.
- Spoel die leë houer drie keer op die volgende wyse uit: Keer die houer om oor die sputtentk of mengbak en dreineer vir minstens 30 sekondes nadat die vloeい tot 'n drup verminder het. Daarna, spoel die leë houer drie keer uit met 'n volume water gelykstaande aan 'n minimum van 10% van die inhoud van die houer. Gooi die spoelwater by die inhoud van die sputtentk voordat die houer vernietig word.
- Vernietig leë houer deur gate in te slaan en moet dit nie vir enige ander doel gebruik nie.
- Voorkom besoedeling van voedsel, voer, eetgerei en drinkwater.

## GEBRUIKSBEPERKINGS

Die deeglike sputbedekking van die boom met **KABUTO** is baie belangrik omdat effektiewe beheer afhanklik is van die aanraking van die kruipers met die residue van die produk waar hulle ookal op die boom beweeg of gevestig is. Dit is hoogs wenslik om hierdie behandeling in samewerking met goeie mierbeheer te doen. Begin die **KABUTO**-sputprogram vroeg in die seisoen op klaar geplukte bome vir die volgende redes:

- Die afwesigheid van vrugte aan die boom verhoog penetrasié van die sputmengsel.
- Kruiperverskyning is meer eenvormig sodra na-winter temperature begin toeneem.
- Moontlike vroeë kruiperteenwoordigheid mag pokmerke op die ontwikkelende vrug veroorsaak.

Dit is moontlik dat die byvoeging van 0.25% - 0.5% smalbestek distilleringsolie 'n wisselvallige nadelige invloed op die opbrengs kan hê wanneer dit soos aangedui, toegedien word. Om hierdie moontlikheid te verminder, moet toediening beperk word tot gesonde, goed-besproeide boorde en deur nie by temperature bokant 30 °C te spuit nie. Die hoeveelheid olie wat gebruik word sal van die situasie afhang. Vir meer inligting, raadpleeg jou plaaslike gewasoplossingspesialis.

## WEERSTANDSWAARSKUWING

Vir weerstandsbestuur is **KABUTO** 'n groepkode 16 insekdoder. Enige insekpoppulasie mag individue insluit wat 'n natuurlike weerstand teen **KABUTO** en enige ander groepkode 16 insekdoders het. Indien hierdie insekdoders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die insekpoppulasie oorheers. Die weerstandbiedende insekte sal waarskynlik nie deur **KABUTO** of enige ander groepkode 16 insekdoder beheer word nie.

### Om weerstand teen insekdoders te vertraag:

- Vermy die eksklusieve 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 'n insekbeheerprogram.

Aangesien die voorkoms van weerstand nie voorspel kan word nie, word gebruikers aangeraai om behandelde gewasse noukeurig dop te hou. Indien die behandeling met **KABUTO** soos aanbeveel nie doeltreffend was nie, mag 'n weerstandbiedende populasie teenwoordig wees. Indien 'n weerstandbiedende populasie positief geïdentifiseer word, moet daar onmiddellik oorweging geskenk word aan die gebruik van 'n insekdoder met 'n ander metode van werking, waarvan daar geen rekord van weerstand teen die betrokke plaag is. Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk.

## GEBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

## VERENIGBAARHEID

**KABUTO** is verenigbaar met die smalbestek-distilleringsolies en die meeste nie-ioniese benatters.

## MENGINSTRUKSIES

Maak die spuittenk halfvol met skoon water. Voeg die verlangde hoeveelheid **KABUTO** by, terwyl konstante roering gehandhaaf word. Vul die spuittenk met water en die hoeveelheid olie wat nodig word tot by die verlangde vlak terwyl daar voortdurend geroer word om deeglike vermenging van die spuitmengsel te verseker voordat bespuiting begin word. Handhaaf roering gedurende bespuiting. **Tenkmengsels moet onmiddellik uitgespuit word en nie toegelaat word om oornag in die spuittenk te staan.** Verseker dat roering vir 'n paar minute voor die aanvang van 'n bespuiting plaasvind, na bv. normale operasionele pouses, soos middagetes. Sputtoerusting moet deeglik uitgespoel word aan die einde van die toediening.

## AANBEVELINGS

GEWAS/PLAAG	DOSIS / 100 ℓ WATER	OPMERKINGS
<b>AVOKADO'S</b> Hartvormige dopluse  Dien toe wanneer swaar infestasies van die hartvormige dopluse op die onderkant van die blare voorkom.	30 mL <b>KABUTO</b> plus 50 mL nie-ioniese benatter (0.05% oplossing)	Dien toe as 'n hoë-volume, volle dekbespuiting net voor aktiewe 1ste generasie kruipers begin beweeg. Dit vind gewoonlik plaas aan die einde van Oktober wanneer 80% van die wyfies duidelike geel eiersakke het. Goeie bedekking aan die binnekant van die boom is van groot belang vir effektiewe dopluisbeheer.
<b>SITRUS</b> Rooidopluis "Groen en oranje situasie" Rooidopluis onder kommersiële beheer en situasies waar 'n enkele somerolie bespuiting op sy eie in die tydperk 9 - 11 weke na 100% blomblaarval nie die insekte onder beheer sal bring nie.	30 mL <b>KABUTO</b> plus 250 - 500 mL lichte smalbestek distilleringsolie (0.25% - 0.5%) plus 10 mL nie-ioniese benatter.	Tydsberekening is van kritieke belang en toediening moet plaasvind aan die begin van die spesifieke kruiperbeweging. Herhaal toediening 28 dae na die eerste bespuiting.  DIEN ALTYD TWEE BESPUITINGS TOE.
<b>SITRUS</b> Witluis	30 mL <b>KABUTO</b> plus 250 - 500 mL lichte smalbestek distilleringsolie (0,25% - 0,5%) plus 10 mL nie-ioniese benatter.	Dien toe by die aanvang van die eerste kruiperbeweging wanneer witluisbesmetting plaasvind en voor sluiting van die blomkelk. Herhaal toediening 28 dae later in gevalle van swaar besmetting.  Indien bespuiting net vir <b>witluis</b> -beheer gedoen word (geen dopluse nie), dan kan die olie weggaat word.

### Notas

- Kruiperbeweging kan gedurende matige winters voorkom, in welke geval **KABUTO** onmiddellik toegedien moet word en na 28 dae herhaal word. In so 'n geval kan kruiperbeweging weer laat in die seisoen voorkom en kan dan beheer word deur olie by die spuitmengsel te voeg.
- Die bepaling van die aanvang van kruiperbeweging kan vergemaklik word deur van feromoonlokvalle gebruik te maak om manlike vlugpieke te monitor en fisiese inspeksie vir kruiperbeweging te doen.
- Kruiperbeweging moet voortdurend gemonitor word. Die bevolkingsdruk sal bepaal wat die nodige aantal bespuitings gaan wees.