

VITEX 50

BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY

GEBRUIKSAANWYSINGS INGESLUIT
VERWYS NA BESONDERHEDE
SOOS OP HOUER / SAK GEDRUK

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

VITEX 50
INSECTICIDE


Reg. No. L 9525, Act/Wet No. 36 of/van 1947
Namibian Reg. No. N-AR 1687

**A water dispersible granular
translaminar stomach insecticide
for the control of pests on crops
as listed.**

3: 21/02/2017

**'n Waterdispergeerbare korrel
translaminêre maaginsekddoder vir
die beheer van plae op gewasse
soos aangedui.**

IRAC INSECTICIDE GROUP CODE

6

IRAC INSEKDDOERGROEPKODE

ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL

Emamectin (as emamectin benzoate) 50 g/kg Emamektien (as emamektien bensoaat)

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

600g



UN Number: 3077



**CAUTION /
VERSIGTIG**



WARNINGS

Withholding period:

Allow the following minimum number of days between last treatment and harvest:

Apples and Pears.....	21 days*
Brassica vegetables.....	7 days
Canola.....	14 days
Maize (excluding Sweetcorn).....	14 days
Sweetcorn	3 days
Tomatoes.....	1 day
Peppers.....	5 days
Tree Nuts.....	50 days
Wheat and Barley.....	14 days

(* Only in combination with **CLARITY** (L 9128))

IMPORTANT: The recommended withholding period between last application and harvest meets local residue requirements, but may not meet export requirements. If the treated crop is intended for export, consult the relevant importer or exporting body regarding the Maximum Residue Limits and recommended withholding periods for the use of this product.

- Refrain from allowing animals to feed on treated foliage.
- Handle with care.
- Harmful by swallowing or inhalation.
- May cause irritation to skin and eyes.
- Toxic to fish and harmful to aquatic invertebrates.
- Harmful to birds and toxic to bees exposed to direct spray contact.
- Store in the original container in a cool, dry place.
- Store away from food and feed.
- Keep product away from light.
- Keep out of reach of children, uninformed persons and animals.
- Unprotected workers must vacate the area under treatment.
- Do not use this product in any way contrary to the directions on this label.
- **VITEX 50** has been tested on 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 **VITEX 50** to a limited test area before commercial applications are made.
- **Re-entry:** Do not enter the treated area until the spray has dried unless wearing protective clothing.

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 spray mist.
- Avoid skin and eye contact by wearing full protective clothing (protective gloves, boots and face shield) when mixing and applying the product.
- Wash with soap and cold water immediately after use and accidental skin contact.
- Wash contaminated clothing immediately after use.
- All persons in direct contact with the product, including markers, must wear protective clothing- protective gloves, boots and face shield.
- Do not eat, drink or smoke while mixing or applying the product or before washing hands and face.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment and do not treat if wind velocity exceeds 2 meters per second (7 km per hour).
- Clean applicator after use. Dispose of the rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes.

- Prevent contamination of food, feeds, drinking water and eating utensils.
- Triple rinse the empty container with a volume of clean water equal to at least 10% of the container. Add the rinsate to the spray tank before destroying the empty container.
- Destroy the empty container by perforation and before burning or burying it in a safe location.
- **Never** re-use the empty container for any other purpose.
- 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.

RESISTANCE MANAGEMENT

For resistance management, **VITEX 50** is a group code 6 insecticide. Any insect population may contain individuals naturally resistant to **VITEX 50** and other group code 6 insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **VITEX 50** or any other group code 6 insecticides.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticides from the same chemical 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.

Please note that both abamectin and emamectin benzoate are group code 6 insecticides. Therefore, do not tank mix these two products or apply **VITEX 50** within 3 weeks before or after an abamectin application.

For specific information on resistance management, contact the registration holder of this product. Since the occurrence of resistance cannot be forecast, users are advised to keep treated plants under close observation. If treatment is not effective following the use of **VITEX 50** as recommended, a resistant strain may be present. If a resistant strain 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. Meridian Agrochemical Company, trading as Meridian Agritech, will not accept any liability for performance failures in the event of a build-up of resistant insects resulting from inadequate resistance management practices as indicated on the label.

MODE OF ACTION

VITEX 50 is effective for the control of Lepidoptera larvae. **VITEX 50** is translaminar and is rapidly absorbed into the plant. **VITEX 50** is effective against Lepidoptera larvae resistant to organophosphates, pyrethroids and insect growth regulators. After **VITEX 50** ingestion, larval feeding ceases and death occurs within 4 days.

USE RESTRICTIONS

- Do not apply **VITEX 50** to any crop or situation not mentioned in this instruction leaflet.
- Only apply **VITEX 50** using an accurate and safe application technique.
- If **VITEX** 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.
- Do not apply on Canola used as a forage crop.
- Do not apply to crops which are under visible stress.
- **Toxic to bees:** Do not spray during periods of bee activity. Residues may remain toxic to bees for several days after application.
- Before application is made, notify beekeepers to move hives to a safe location with an untreated source of nectar.

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 30-50 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 30 – 40 droplets per square cm must be recovered at the target.
- A droplet spectrum with a VMD of 250 – 280 microns is recommended. Ensure that the production of fine droplets, 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:
 - i. Reduced efficacy due to suspension and evaporation of small droplets in the air (which leads to inadequate coverage).
 - ii. 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.**

DIRECTIONS FOR USE

Use only as directed.

Thorough and even coverage of the crop is essential. Avoid application during the heat of the day or if the plants are wet or if rain is imminent.

COMPATIBILITY

The compatibility of **VITEX 50** 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. When mixing **VITEX 50** with other products, follow all label instructions of the respective products carefully. **VITEX 50** is compatible with **CLARITY** (L 9128) and adjuvants such as Solitaire (L 6962).

MIXING INSTRUCTIONS

Fill the spray tank to one quarter using clean water. Add the required quantity of **VITEX 50** to the water in spray tank while agitating. Fill the spray tank to the desired volume with water while maintaining constant agitation to ensure thorough mixing. Maintain constant agitation during spraying. **Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight.**

APPLICATION RATES

CROP/PEST	APPLICATION RATE	REMARKS
Apples Codling moth <i>(Cydia pomonella)</i>	20 g VITEX 50 + 60m ℓ CLARITY /100 ℓ water at 14 day intervals.	Start application at onset of the 1st, 2nd or 3rd generation. Make sure that an effective control programme precedes the CLARITY / VITEX 50 programme. Apply as a full cover spray for the control of codling moth. Thorough wetting is essential. For the second moth generation, start with applications at the onset of this generation. Repeat applications every fortnight for a maximum of 4 applications per generation. In order to prevent or impede the development of resistance, use products with different modes of action against the other two moth generations. Do not exceed a maximum of 4 applications per season. Ensure thorough coverage. Refer to the IRAC resistance guidelines.
Barley African bollworm <i>(Helicoverpa armigera)</i> Army worms (including Fall army worm) <i>(Spodoptera</i> sp. including <i>Spodoptera frugiperda)</i>	200 g /ha VITEX 50 + a suitable adjuvant. 300 g /ha VITEX 50 + a suitable adjuvant.	Apply as soon as the eggs have hatched. Ensure thorough coverage. If required, a second application may be made 7 days later. If re-infestation occurs following the second VITEX 50 application, unrelated chemistry should be used. Do not exceed 2 applications per crop cycle. Do not use less than 200 g VITEX 50 / ha. Use a penetrant /wetter or light mineral oil with VITEX 50. Do not add a sticker.
Brassica vegetables Cabbage Diamondback moth (<i>Plutella xylostella</i>) Army worms (including Fall army worms) <i>(Spodoptera</i> sp. including <i>Spodoptera frugiperda)</i>	200 g /ha VITEX 50 + a suitable adjuvant. Or 20g /100 ℓ VITEX 50 + a suitable adjuvant 30 g / 100 ℓ VITEX 50 (300 g / ha VITEX 50)	Apply as soon as the pest is noticed as indicated by means of scouting. Add a suitable adjuvant such as Solitaire (L 6962) at the appropriate label rate. Apply as a full cover spray. Do not exceed a maximum of 4 applications to any Brassica crop. Where more than one crop is grown per year, do not apply more than 4 VITEX 50 sprays per year. Refer to the IRAC resistance guidelines.

Canola Diamondback moth (<i>Plutella xylostella</i>) African bollworm (<i>Helicoverpa armigera</i>) Army worms (including Fall army worm) (<i>Spodoptera</i> sp. including <i>Spodoptera frugiperda</i>)	200 g /ha VITEX 50 + a suitable adjuvant. 300 g /ha VITEX 50 + a suitable adjuvant.	Diamondback moth: Apply as soon as the pest is noticed as indicated by means of scouting. African Bollworm and Army Worms: Apply as soon as the eggs have hatched. Add a suitable adjuvant such as Solitaire (L 6962) at the appropriate label rate. Apply as a full cover spray. Ensure thorough coverage. Do not exceed a maximum of 4 applications to any Canola crop. Where more than one crop is grown per year, do not apply more than 4 VITEX 50 sprays per year. Refer to the IRAC resistance guidelines.
Maize and sweetcorn Army worms (including Fall army worms) (<i>Spodoptera</i> sp. including <i>Spodoptera frugiperda</i>)	30 g / 100 l VITEX 50 (300 g / ha VITEX 50)	Apply as soon as the pest is noticed as indicated by means of scouting. Add a suitable adjuvant such as Solitaire (L 6962) at the appropriate label rate. Apply as a full cover spray. Do not exceed a maximum of 4 applications to any Maize crop. Where more than one crop is grown per year, do not apply more than 4 VITEX 50 sprays per year. Refer to the IRAC resistance guidelines.
Wheat African bollworm (<i>Helicoverpa armigera</i>) Army worms (including Fall army worm) (<i>Spodoptera</i> sp. including <i>Spodoptera frugiperda</i>)	200 g /ha VITEX 50 + a suitable adjuvant. 300 g /ha VITEX 50 + a suitable adjuvant.	Apply as soon as the eggs have hatched. Ensure thorough coverage. If required, a second application may be made 7 days later. If re-infestation occurs following the second VITEX 50 application, unrelated chemistry should be used. Do not exceed 2 applications per crop cycle. Do not use less than 200 g VITEX 50 / ha. Use a penetrant /wetter or light mineral oil with VITEX 50. Do not add a sticker.
Pears Codling moth (<i>Cydia pomonella</i>)	20 g VITEX 50 + 60m l CLARITY /100 l water at 14 day intervals.	Start application at onset of the 1st, 2nd or 3rd generation. Make sure that an effective control programme precedes the CLARITY / VITEX 50 programme. Apply as a full cover spray for the control of codling moth. Thorough wetting is essential. For the second moth generation, start with applications at the onset of this generation. Repeat applications every fortnight for a maximum of 4 applications per generation. In order to prevent or impede the development of resistance, use products with different modes of action against the other two moth generations. Do not exceed a maximum of 4 applications per season. Ensure thorough coverage. Refer to the IRAC resistance guidelines.

Peppers: Tomato Leaf Miner Moth (larvae) (<i>Tuta absoluta</i>)	30 - 60 g / 100 ℓ VITEX 50 Or 300 – 600 g / ha VITEX 50	Apply as soon as pest is noticed. Repeat at 7 day intervals. Good coverage of all foliage is essential. Do not exceed 4 applications per crop cycle. Use a penetrant /wetter or light mineral oil with VITEX 50. Do not add a sticker. Apply the higher application rate in situations of severe infestations. VITEX 50 should be used according to the Croplife insecticide resistance strategy
Tomatoes American bollworm (<i>Helicoverpa armigera</i>) Tomato semi-looper (<i>Chrysodeixis acuta</i>) Tomato Leaf Miner Moth (larvae) (<i>Tuta absoluta</i>)	20g /100 ℓ VITEX 50 Or 200g/ha VITEX 50 30 g / 100 ℓ VITEX 50 (300 g / ha VITEX 50)	Apply as soon as pest is noticed in a block of two applications 7 days apart. Do not apply the second VITEX 50 block application within 3 weeks of the first block application. If re-infestation occurs within 3 weeks of the second VITEX 50 application, unrelated chemistry should be used e.g. group 5 - Spinosad, group 13 – Chlorfenapyr or group 22 – Indoxacarb. Do not exceed 4 applications per crop cycle. Do not use less than 200 g VITEX 50 / ha. Use a penetrant /wetter or light mineral oil with VITEX 50. Do not add a sticker. VITEX 50 should be used according to the Croplife insecticide resistance strategy. Apply as soon as pest is noticed. Repeat at 7 day intervals. Good coverage of all foliage is essential. Do not exceed 4 applications per crop cycle. Use a penetrant /wetter or light mineral oil with VITEX 50. Do not add a sticker. VITEX 50 should be used according to the Croplife insecticide resistance strategy.
Tree Nuts (Includes almonds, macadamias and Pecans) Macadamia nut borer (MNB) (<i>Thaumatotibia (= Cryptophlebia) batrachopa</i>) (Meyrick, 1908)	20 g VITEX 50 + 40 g TAMPRID / 100 ℓ water And / or 30 g VITEX 50 / 100 ℓ water	Use the appropriate scouting and monitoring techniques to predict the onset of pest infestation. In orchards with a known history of Macadamia nut borer infestation, or a predicted high level of infestation, make the first two applications with VITEX 50 + TAMPRID mixture. Thereafter, continue the programme with VITEX 50 solo. Start applications when the pest eggs are hatching, but before the neonate larvae penetrate the nuts. A medium cover spray is essential to ensure that all the nut clusters are adequately protected. For the best results, a spray oil is recommended when VITEX 50 is applied as a solo treatment. If high infestations of MNB persist, repeat the application after 7-10 days. Do not exceed a maximum of 2 applications of the mixture of VITEX 50 + TAMPRID per growing season. Do not exceed a maximum of 4 applications of VITEX 50 per season either solo or in the mixture.

High volume application

The volume of water to be applied per hectare must be calculated according to the Tree Row Volume (TRV) formula:

$$L/ha = \frac{\text{Tree height} \times \text{Tree diameter} \times 937}{\text{Row Width}}$$

The **TRV** calculation is the volume of water required when the trees are in full leaf. Use the water volume required per hectare to calculate the amount of **VITEX 50 / CLARITY** required during the various growth stages of a tree during the season.

Water requirements per hectare as recommended according to the different growth stages of a tree:

Growth Stage	% High volume water requirement/ha
From green tip to ± 30 % blossom	60 %
From ± full blossom to ± middle November	80%
From ± beginning December	100%

Low volume

When **VITEX 50 / CLARITY** is applied as a low volume spray, ensure that the correct amount of product, as calculated for the high volume requirement, is applied per hectare.

SUCCESSFUL CODLING MOTH CONTROL MANAGEMENT

- It is recommended that **VITEX 50 / CLARITY** be used in conjunction with the pheromone mating disruption technique.
- Codling moth resistance levels against organophosphates may vary in orchard to orchard, therefore control techniques should be adjusted accordingly.
- Do not neglect practices such as pruning, thinning and the collecting and destroying of thinned and infested fallen fruit.
- Best results may be expected with **VITEX 50 / CLARITY** if the recommended spray volumes are used.
- Apply compounds from different chemical groups against each moth generation.
- Four **VITEX 50 / CLARITY** applications at fortnightly intervals are recommended for the control of moth generations. For maximum efficacy, this programme should not be interrupted by the use of other compounds. Ensure that the correct amount of **VITEX 50 / CLARITY** per hectare is applied as calculated from the Tree Row Volume (TRV) formula (see below).
- When **VITEX 50 / CLARITY** are used for the last generation of a specific season (in cases where only two generations were present), products with a different mode of action must be used for the first generation of the following season.

ACKNOWLEDGEMENT OF TRADEMARKS

Clarity (L 9128)
Solitaire (L 6962)
Tamprid (L 9582)

Meridian Agrochemical Company (Pty) Ltd
SAFAGRIC (Pty) Ltd
Meridian Agrochemical Company (Pty) Ltd

WAARSKUWINGS

Onthoudingsperiode:

Laat die volgende minimum aantal dae toe tussen die laaste behandeling en oes:

Appels en Pere.....	28 dae*
Koolgewasse.....	7 dae
Kanola.....	14 dae
Mielies (Suikermielies uitgesluit).....	14 dae
Suikermielies.....	3 dae
Tamaties.....	1 dag
Rissies.....	5 dae
Boomneute.....	50 dae
Koring en Gars.....	14 dae

*(Slegs in kombinasie met **CLARITY** (L 9128))

BELANGRIK: Die aanbevole onthoudingsperiode tussen die laaste toediening en oes voldoen aan die plaaslike residuvereistes, maar dit mag nie aan die buitelandse uitvoervereistes voldoen nie. Indien die behandelde gewas vir die buiteland bestem is, moet die relevante invoer- of uitvoerinstansie genader word rakende die aanbevole onthoudingsperiode (MRL) vir die gebruik van die produkte.

- Moenie toelaat dat diere aan behandelde weidings en gewasse vreet nie.
- Hanteer versigtig.
- Skadelik indien ingesluk of ingeasem.
- Dit mag irritasie op die vel en oë veroorsaak.
- Giftig vir visse en skadelik vir akwatiese ongewerwelde diere.
- Skadelik vir voëls en giftig vir bye wat aan direkte kontak tydens bespuiting blootgestel word.
- Stoor in die oorspronklike houer in 'n koel, droë plek.
- Stoor weg van enige voedsel en voer.
- Hou die produk weg van direkte sonlig.
- Hou die produk buite bereik van kinders, oningeligte persone en diere.
- Onbeskermdde werkers moet die behandelde area verlaat.
- Moet nie hierdie produk op enige manier anders gebruik as wat die aanwysings op die etiket aandui nie.
- **VITEX 50** is op die mees belangrikste kommersiële kultivars getoets sonder enige fitotoksiseitskade. Meer sensitiewe kultivars mag in die toekoms beskikbaar gestel word wat getoets moet word. Vir hierdie doel, dien **VITEX 50** op 'n beperkte area toe voordat enige kommersiële toedienings gemaak word.
- **Herbetreding:** Moenie die behandelde area betree voordat die spuitneerslag gedroog het nie, behalwe as daar beskermde oorklere gedra 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 verantwoordlikheid 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.

VOORSORGMAATREËLS

- Moet nie die spuitmis inasem nie.
- Verhoed vel- en oogkontak deur beskermde oorklere te dra (beskermde handskoene, handskoene, stewels en gesigskerm) wanneer die produk vermeng en toegedien word.
- Was onmiddellik met seep en koue water na gebruik en toevallige velkontak.
- Was besoedelde klere onmiddellik na gebruik.
- Alle persone in direkte kontak met die produk, merkers ingesluit, moet beskermende klere, handskoene, waterstewels en gesigskerm dra.
- Moet nie eet en drink terwyl die produk vermeng en toegedien word nie of voordat hande en gesig gewas is nie.
- Moet nie die produk toedien tydens periodes waarin bye aktief is nie.

- Verhoed die wegdrywing na gewasse, weidings, riviëre, damme en areas wat nie onder behandeling is nie en moet nie toedien indien die windspoed 2 meter per sekonde (7km per uur) oorskry nie.
- Maak die spuittoerusting skoon na gebruik. Raak ontslae van die spoelmiddel waar dit nie gewasse, weidings, riviëre, damme en boorgate sal besoedel nie.
- Verhoed die besoedeling van voedsel, voere, drinkwater en eetgerei.
- Spoel die leë houer **drie keer** uit op die volgende wyse: Keer die leë houer om oor die spuittenk of mengbak en dreineer vir minstens 30 sekondes nadat die vloeï tot 'n drup verminder het. Spoel die leë houer daarna driekeer 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 spuittenk voordat die houer op die voorgeskrywe wyse vernietig word.
- Vernietig die houer deur dit te perforeer en hou dit veilig totdat dit verbrand of begrawe word.
- **Moet nooit** die houer vir enige ander doel gebruik nie.
- Moenie die produk vermeng of saamvoeg met ander landboupprodukte of tenkmengsels wat nie spesifiek op die etiket aangebring is nie. Meridian Agrochemical Company (Edms.) Bpk. aanvaar geen verantwoordelikheid vir enige negatiewe effekte wat ervaar word indien die instruksies op die etiket nie nagekom word nie, behalwe as 'n Meridian verteenwoordiger vooraf geraadpleeg is nie.

WEERSTANDBESTUUR

Vir weerstandsbestuur is **VITEX 50** 'n groepkode 6 insekdoder. Enige insekpopulasie mag individue bevat wat natuurlik weerstandbiedend teen **VITEX 50** en enige ander groepkode 6 insekdoders is. Die weerstandbiedende individue kan aanvanklik die insekpopulasie domineer indien hierdie insekdoders herhaaldelik gebruik word. Hierdie weerstandbiedende insekte sal waarskynlik nie deur **VITEX 50** of enige ander groepkode 6 insekdoder beheer word nie.

Om insekdoder weerstand te vertraag:

- Verhoed die eksklusiewe herhaaldelike gebruik van insekdoders van dieselfde chemiese groepkode;
- Wissel af met, of gebruik tenkmengsels van, geregistreerde produkte van verskillende insekdodergroepkodes.
- Integreer ander beheermetodes (chemies, verbouing of biologies) in insekbeheerprogramme.

Neem asseblief kennis dat abamektien- en emamektienbensoaat beide groep 6 insekdoders is. Vir die doeleindes moenie tenkmengsel van die twee produkte maak nie, of **VITEX 50** binne 3 weke nadat abamektien toegedien, gebruik nie.

Vir spesifieke inligting aangaande weerstandsbestuur, moet die registrasiehouer van die produk gekontak word. Aangesien die teenwoordigheid van weerstand nie vooraf bepaal kan word nie, word gebruikers versoek om die behandelde gewasse noukeurig te ondersoek. Indien die behandeling nie effektief was na die gebruik van **VITEX 50** soos voorgeskryf nie, mag 'n weerstandbiedende-populasie teenwoordig wees. Indien die weerstandbiedende-populasie positief geïdentifiseer word, moet dringende oorweging geskenk word aan die gebruik van 'n insekdoder met 'n verskillende metode van werking en waar daar geen rekord van weerstand teen die betrokke plaag is nie.

METODE VAN WERKING

VITEX 50 is effektief vir die beheer van Lepidoptera-larwes. **VITEX 50** is translaminêr en word vinnig deur die plant geabsorbeer. **VITEX 50** is effektief teen Lepidoptera-larwes wat weerstandbiedend is teen organofosfate, piretroïdes en insekgroeireguleerders. As **VITEX 50** ingeneem word, staak larwale voeding en vind afsterwing van die larf binne 4 dae plaas.

GEBRUIKSBEPERKINGS

- Moet nie **VITEX 50** op enige gewas of situasie toedien wat nie op hierdie etiket verskyn nie.
- Dien **VITEX 50** slegs met akkurate en veilige toedieningsmetodes
- Indien **VITEX 50** in 'n tenkmengsel met ander aanbevole produkte gebruik word, moet oorweging geskenk word aan die beperkings van daardie betrokke produkte.
- Moet nie hierdie produk in kombinasie of tenkmengsel met enige ander produk of landboumiddel gebruik, wat nie spesifiek op hierdie etiket gelys word nie. Meridian Agrochemical Company (Edms.) Bpk. 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.
- Moet nie op Canola toedien wat as 'n voergewas gebruik word nie.

- Moet nie toedien op gewasse wat onder sigbare stres is nie.
- **Giflig vir bye:** Moenie spuit wanneer bye aktief is nie. Residue kan vir bye vir 'n paar dae na toediening nog giflig wees.
- Voordat bespuiting gedoen word, moet byeboere in kennis gestel word om korwe na 'n veilige plek met 'n onbehandelde bron van nektar te skuif.

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 vereistes te voldoen:

Toerusting

- Gebruik geskikte atomiseringsapparaat wat die vereiste druppelgrootte en bedekking sal produseer, maar wat die minste verlies van produk deur wegdrywing sal verseker.
- Die operateur moet 'n spuitkopstelsel 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 die druppels binne-in die vlerkpuntvorteks inbeweeg.

Toedieningsvereistes

- 'n Minimum volume van 30-50 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 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 (kleiner as 150 mikron) tot 'n minimum beperk word.
- Die hoogte van die spuitbalk moet tussen 3 en 4 meter bokant die teiken gehandhaaf word.
- Moet nie spuit wanneer die vliegtuig besig is om te klim, te draai, te duik, of terwyl dit uitklim nie.

Meteorologiese Toestande

- Die verskil tussen die nat- en droëbollesing, soos met 'n swaaihygrometer bepaal, moet nie 8°C oorskry nie.
- Moenie tydens turbulente, onstabiele toestande, of gedurende die hitte van die dag wanneer stygende en dalende konveksie-windbewegings plaasvind, toedien nie.
- Moenie tydens temperatuurinversie-toestande (deur bokant of binne-in die inversielaag te spuit) en/of gedurende hoë humiditeitstoestande toedien nie, aangesien dit kan lei tot:
 - iii. Verlaagde effektiwiteit a.g.v. suspensie of verdamping van klein druppels in die lug (wat tot onvoldoende bedekking op teikenarea lei).
 - iv. Skade aan ander sensitiewe gewasse en/of nie-teikenareas deur wegdrywing van die spuitwolk vanaf die teikenarea.
- Moet nie spuit wanneer die windspoed 15 km per uur oorskry nie.

Algemeen

- Verseker dat die lande akkuraat gemerk is en dat die spuitoperateur presies weet watter lande gespuit moet word.
- **Verkry 'n versekering van die spuitoperateur dat aan die bogenoemde vereistes voldoen sal word en dat die betrokke data in 'n logboek saamgevat sal word vir toekomstige verwysing.**

GEBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

Deeglike en eweredige bedekking van die gewas is baie belangrik. Vermy toediening gedurende die hitte van die dag, of wanneer plante nat is of wanneer reën verwag word.

MENGBAARHEID

Die mengbaarheid van **VITEX 50** met ander produkte hang van die formulering van die betrokke produkte af, sowel as van die kwaliteit van die spuitwater. Deurdat formulering van tyd tot tyd verander, word dit aanbeveel om eers 'n fisiese mengbaarheidstoets te doen word voordat die tenkmengsel aangemaak word. Wanneer **VITEX 50** met ander produkte gemeng word, moet die instruksies op die etikette van daardie betrokke produkte noukeurig gevolg word. **VITEX 50** is mengbaar met **CLARITY** (L. 9128) en byvoegmiddels soos **Solitaire** (L. 6962)

MENGINSTRUKSIES

Vul 'n kwart van die spuittenk met skoon water. Voeg die verlangde volume **VITEX 50** by die water in die spuittenk terwyl die tenk heeltyd geroer word. Vul die spuittenk op met die verlangde watervolume terwyl die tenk konstant geroer word om deeglike vermenging te verseker. Verseker konstante roering deur die hele spuitproses. **Tenkmengsels moet onmiddellik uitgespuit word en nie toegelaat word om oornag oor te staan nie.**

AANBEVELINGS

GEWAS/ SIEKTE	DOSIS	OPMERKINGS
Appels Kodlingmot <i>(Cydia pomonella)</i>	20 g VITEX 50 + 60m ℓ CLARITY / 100 ℓ water met 14 dae intervalle	Begin die toediening met begin van 1ste, 2de en 3de generasie. Maak seker dat 'n effektiewe beheerprogram die CLARITY/ VITEX 50 -programme voorafgaan. Dien toe as voldekbepuiting vir beheer van kodlingmot. Deeglike benatting is belangrik. Vir die 2de mot-generasie begin met toediening by die aanvang van die generasie. Herhaal die toedienings elke twee weke met 'n maksimum van 4 toedienings per generasie. Ten einde te poog of om weerstand te verhoed of te vertraag, gebruik produkte met verskillende werkingsmetodes met die ander 2 mot - generasies. Moet nie die maksimum van 4 toedienings per seisoen oorskry nie. Verseker volledige bedekking. Verwys na IRAC weerstandsriglyne
Gars Afrika bolwurm <i>(Helicoverpa armigera)</i> Kommandowurm (insluitend Herfs kommandowurm) <i>(Spodoptera sp. insluitend Spodoptera frugiperda)</i>	200 g/ha VITEX 50 + 'n geskikte bevorderingsmiddel. 300 g/ha VITEX 50 + 'n geskikte bevorderingsmiddel.	Dien toe sodra die eiers ontkiem het. Verseker deeglike bedekking. Indien nodig kan 'n opvolgbesuiting 7 dae later gemaak word. Indien her-infestasië na die tweede VITEX 50 toediening plaasvind, moet nie-verwante chemie gebruik word. Moet nie meer as 2 besuitings per gewassiklus toedien nie. Moet nie minder as 200 g VITEX 50 /ha gebruik nie. Gebruik 'n benatter of ligte minerale olie saam met VITEX 50 . Moet nie 'n kleefmiddel byvoeg nie.
Koolgewasse Koolruitrugmot (<i>Plutella xylostella</i>)	200g/ha VITEX 50 + 'n geskikte bevorderingsmiddel. Of 20g/100 ℓ VITEX 50 + geskikte bevorderingsmiddel.	Dien toe so gou as wat die plaag gesien word by wyse van verkenning. Voeg 'n toepaslike byvoegmiddel soos Solitaire (L 6962) by teen die vereiste dosis soos op die etiket aangedui. Dien toe as 'n volle dekbepuiting. Moet nie die maksimum van 4 toedienings VITEX 50 op enige koolgewas oorskry nie. Waar daar meer as een gewas per jaar gegroei word, moet nie meer as 4 x spuite per jaar toedien nie. Verwys na IRAC weerstandsriglyne

Kommandowurm (insluitend Herfs Kommandowurm) (<i>Spodoptera sp.</i> insluitend <i>Spodoptera frugiperda</i>)	30 g/100 l VITEX 50 (300 g/ha VITEX 50)	
Canola Ruitrugmot (<i>Plutella xylostella</i>) Afrika bolwurm (<i>Helicoverpa armigera</i>) Kommandowurm (insluitend Herfs kommandowurm) (<i>Spodoptera sp.</i> insluitend <i>Spodoptera frugiperda</i>)	200 g / ha VITEX 50 + 'n geskikte bevorderingsmiddel. 300 g /ha VITEX 50 + 'n geskikte bevorderingsmiddel.	Ruitrugmot: Dien toe sodra die plaag opgemerk word soos aangedui deur middel van verkenning. Afrika bolwurm en Kommandowurm: Dien toe sodra die eiers ontkiem het. Voeg 'n geskikte bevorderingsmiddel soos Solitaire (L6962) teen die toepaslike etiketdosis by. Dien toe as 'n volle dekbespuiting. Verseker deeglike bedekking. Moet nie meer as 4 toedienings vir enige Canola-gewas oorskry nie. Waar meer as een gewas verbou word per jaar, moet nie meer as 4 VITEX 50 bespuitings per jaar toedien nie. Verwys na die riglyne IRAC weerstandsriglyne.
Mielies en Suikermielies Kommandowurm (insluitend Herfs Kommandowurm) (<i>Spodoptera sp.</i> insluitend <i>Spodoptera frugiperda</i>)	30 g/100 l VITEX 50 (300 g/ha VITEX 50)	Dien toe sodra die plaag opgemerk word soos aangedui deur middel van verkenning. Voeg 'n geskikte bevorderingsmiddel soos Solitaire (L 6962) by teen die vereiste etiketdosis. Dien toe as 'n volle dekbespuiting. Moet nie meer as 4 toedienings vir enige mielie of suikermielie-gewas oorskry nie. Waar meer as een gewas verbou word per jaar, moet nie meer as 4 VITEX 50 bespuitings per jaar toedien nie. Verwys na die riglyne IRAC weerstandsriglyne.
Koring Afrika bolwurm (<i>Helicoverpa armigera</i>) Kommandowurm (insluitend Herfs kommandowurm) (<i>Spodoptera sp.</i> insluitend <i>Spodoptera frugiperda</i>)	200 g/ha VITEX 50 + 'n geskikte bevorderingsmiddel. 300 g/ha VITEX 50 + 'n geskikte bevorderingsmiddel.	Dien toe sodra die eiers ontkiem het. Verseker deeglike bedekking. Indien nodig kan 'n opvolgbespuiting 7 dae later gemaak word. Indien her-infestasië na die tweede VITEX 50 toediening plaasvind, moet nie-verwante chemie gebruik word. Moet nie meer as 2 bespuitings per gewassiklus toedien nie. Moet nie minder as 200 g VITEX 50/ha gebruik nie. Gebruik 'n benatter of ligte minerale olie saam met VITEX 50. Moet nie 'n kleefmiddel byvoeg nie.
Pere Kodlingmot (<i>Cydia pomonella</i>)	20 g VITEX 50 + 60 ml CLARITY / 100 l water met 14 dae intervalle	Begin die toediening by die aanvang van die 1ste, 2de en 3de generasie. Maak seker dat 'n effektiewe beheerprogram die CLARITY/ VITEX 50-programme voorafgaan. Dien toe as 'n volle dekbespuiting vir die beheer van kodlingmot. Deeglike benatting is noodsaaklik. Vir die tweede mot-generasie begin toediening by die aanvang van die generasie. Herhaal die toedienings elke twee weke vir maksimum van 4 toedienings per generasie. Ten einde ontwikkeling van weerstand te verhoed of te vertraag, gebruik produkte met verskillende metodes van

		werking op die ander twee mot-generasies. Moet nie 'n maksimum van 4 toedienings per seisoen oorskry nie. Verseker deeglike bedekking. Verwys na die IRAC weerstandsriglyne
Rissies Tamatie Blaarmynermot (larwes) (<i>Tuta absoluta</i>)	30 - 60 g/100 l VITEX 50 of 300 – 600 g/ha VITEX 50	Dien toe sodra plaag opgemerk word. Herhaal elke 7 dae. Bedekking van alle blare is noodsaaklik. Moenie meer as 4 bespuitings per gewasgroeisiklus toedien nie. Gebruik 'n penetreerder/benatter of ligte minerale olie saam met VITEX 50. Moet nie 'n kleefmiddel byvoeg nie. Gebruik die hoër toedieningsdosis in situasies van ernstige besmettings. VITEX 50 moet volgens die Croplife - insekdoderweerstandstrategie gebruik word
Tamaties Amerikaanse bolwurm (<i>Helicoverpa armigera</i>) Tamatie valslandmeter (<i>Chrysodexis acuta</i>) Tamatie Blaarmynermot (larwes) (<i>Tuta absoluta</i>)	20 g / 100 l VITEX 50 of 200g / ha VITEX 50 30 g/100 l VITEX 50 (300 g/ha VITEX 50)	Dien toe sodra die plaag gesien word in 'n blok van twee spuitprogramme 7 dae uitmekaar. Moet nie die tweede VITEX 50 blok toediening binne 3 weke na die eerste blok toediening maak nie. Indien herinfestasië binne 3 weke van die 2de VITEX 50 toediening plaasvind, moet nie- verwante chemie gebruik word. Byvoorbeeld groepkode 5 – Spinosad, groepkode 13 – Chlorfenapir of groepkode 22 Indoksakarb. Moet nie 4 toedienings per gewassiklus oorskry nie. Moet nie minder as 200g VITEX 50 / ha gebruik nie. Gebruik 'n penetreerder/benatter of ligte minerale olie saam met VITEX 50. Moet nie 'n kleefmiddel byvoeg nie. VITEX 50 moet volgens die Croplife insekdoderweerstandstrategie gebruik word. Dien toe sodra plaag opgemerk word. Herhaal elke 7 dae. Bedekking van alle blare is noodsaaklik. Moenie meer as 4 bespuitings per gewasgroeisiklus toedien nie. Gebruik 'n penetreerder/benatter of ligte minerale olie saam met VITEX 50. Moet nie 'n kleefmiddel byvoeg nie. Gebruik die hoër toedieningsdosis in situasies van ernstige besmettings. VITEX 50 moet volgens die Croplife - insekdoderweerstandstrategie gebruik word
Boomneute (Ingesluit Amandels, Makadamias en Pekanneute) Makadamia neutboorder (MNB) (<i>Thaumatotibia</i> (= <i>Cryptophlebia</i>) <i>batrachopa</i>) (Meyrick, 1908)	20 g VITEX 50 + 40 g TAMPRID / 100 l water en/of 30 g VITEX 50 / 100 l water	Gebruik die toepaslike verkenning – en moniteringstegnieke om die aanvang van insekinfestasie te voorspel. In boorde met 'n geskiedenis van Makadamia neutboorder infestasië, of 'n voorspelde hoë populasiedruk, word die eerste twee toedienings as 'n mengsel van VITEX 50 + TAMPRID aanbeveel. Daarna kan die program voortgesit word met VITEX 50 alleen. Begin toediening sodra plaageiers uitgebroei is, maar voordat die pasgebore larwes die neute gepenetreer het.

		'n Medium dekbespuiting is noodsaaklik om te verseker dat al die neuttrosse voldoende beskerm word. Vir die beste resultate word 'n spuitolie aanbeveel wanneer VITEX 50 as 'n enkelbespuiting toegedien word. Indien hoë infestasie van MNB volhard, herhaal die toediening na 7-10 dae. Moet nie 'n maksimum van 2 toedienings van die mengsel van VITEX 50 + TAMPRID per groeiseisoen oorskry nie. Moet nie 'n maksimum van 4 toedienings van VITEX 50 per seisoen as enkelbespuiting of as 'n mengsel oorskry nie.
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Hoë-volume toediening

Die volume water wat toegedien moet word per hektaar moet bereken word volgens die BoomryVolume (BRV)-formule:

$$\ell / \text{ha} = \frac{\text{Boomhoogte} \times \text{boom deursnee} \times 937}{\text{Rywydte}}$$

Rywydte

Die BRV-berekening is die volume water wat benodig word wanneer die bome in volblad is. Gebruik die watervolume per hektaar om die hoeveelheid **VITEX 50 / CLARITY** wat benodig word gedurende die verskillende groeistadiums van 'n boom, gedurende die seisoen, te bereken.

Waterbehoefte per hektaar soos aanbeveel vir die verskillende groeistadia van 'n boom:

Groeistadium	% Hoë-volume water benodig / ha
Vanaf groenpunt tot +/- 30% blom	60%
Vanaf +/- volblom tot +/- middel November	80%
Vanaf +/- begin Desember	100%

Lae-volume toediening:

Wanneer **VITEX 50/ CLARITY** toegedien word as 'n lae-volume bespuiting, verseker dat die korrekte hoeveelheid van die produk, soos bereken vir die hoë-volume vereiste, per hektaar toegedien word.

SUKSESVOLLE BESTUUR VAN KODLINGMOTBEHEER

- Dit word aanbeveel dat **VITEX 50 / CLARITY** gebruik word in oorleg met feromoon paringsontwrigtingstegnieke.
- Kodlingmotweerstandsvlakke teen organofosfate mag verskil van boord tot boord, dus in oorleg hiermee moet beheermetodes ooreenkomstig aangepas word.
- Moet nie praktyke soos uitdunning, snoei en die verwydering en vernietiging van uitgedunde en afgevalde besmette vrugte nalaat nie.
- Die beste resultate met **VITEX 50 / CLARITY** kan verwag word indien die aanbevole spuitvolumes gebruik word.
- Dien middels van verskillende chemiese groepe teen elke mot-generasie toe.
- Vier **VITEX 50 / CLARITY** bespuitings met 2 weke intervalle word aanbeveel vir die beheer van mot-generasies. Vir maksimum doeltreffendheid, moet hierdie program nie met ander middels onderbreek word nie. Verseker dat die korrekte dosis **VITEX 50 / CLARITY** per hektaar toegedien word soos bereken met die Boomryvolume (BRV)-formule (sien hierbo).
- Wanneer **VITEX 50 / CLARITY** vir die laaste generasie van 'n spesifieke seisoen (in die geval waar daar net twee generasies teenwoordig was) gebruik word, moet produkte met 'n ander metode van werking gebruik word vir die beheer van die eerste mot-generasie van die volgende seisoen.

ERKENNING VAN HANDELSMERKE

Clarity (L 9128)
Solitaire (L 6962)
Tamprid (L9582)

Meridian Agrochemical Company (Edms.) Bpk.
SAFAGRIC (Edms.) Bpk.
Meridian Agrochemical Company (Edms.) Bpk.

