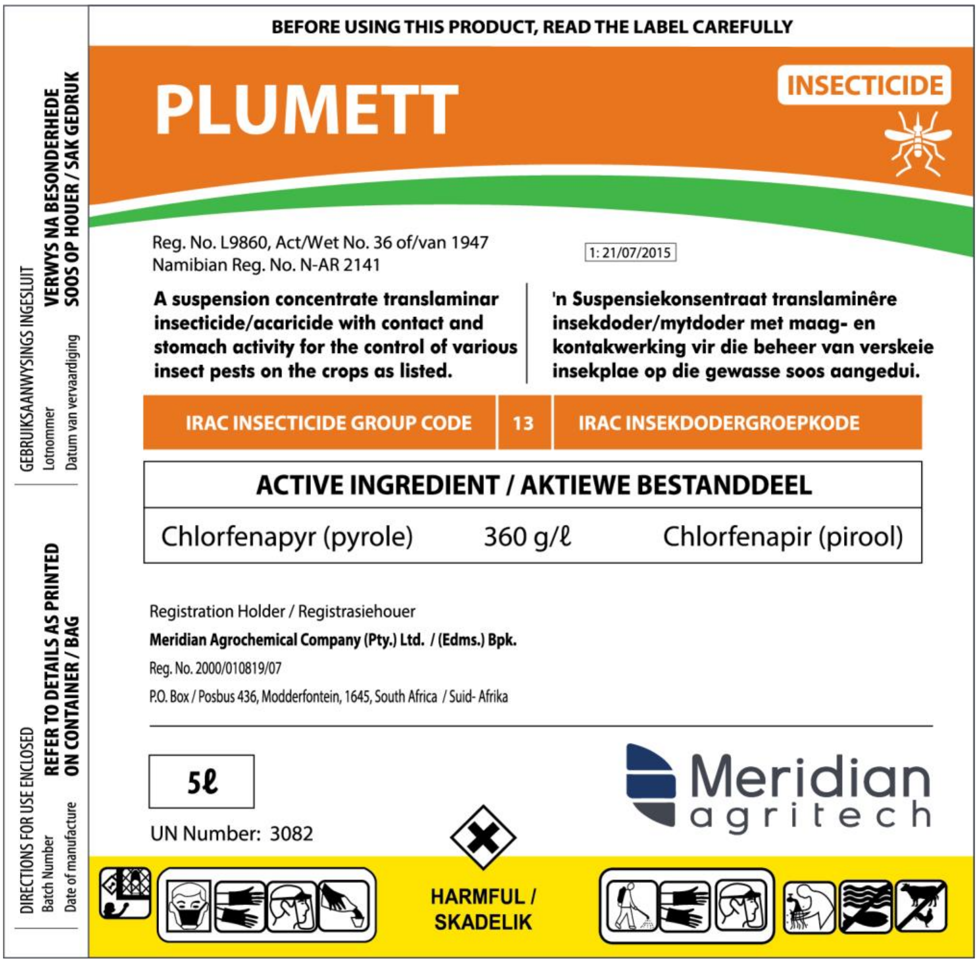
Meridian agritech

PLUMETT



WARNINGS

Withholding periods:
Allow the following minimum number of days between last treatment, harvest and grazing:

Apples	30 days
Citrus	140 days
Cruciferae	7 days
Table Grapes	80 days
Nectarines	30 days
Potatoes	14 days
Tomatoes	3 days

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.

- Handle with care.
- Harmful by inhalation and swallowing.
- Toxic to fish, birds, bees, other animals and other aquatic organisms.
- May cause irritation to skin and eyes.
- Store under lock and key in the original container in a cool, dry, well-ventilated place.
- Store away from food, feed, seed and fertilizers.
- Keep product away from direct sunlight.
- Avoid storage at temperatures above 37 °C.
- Do not store near sources of heat.
- Keep out of reach of children, uninformed persons and animals.
- Use of this material in a manner or at a time other than in accordance with the directions on this label may cause excessive residues or other undesirable results.
- Do not use this product in any way contrary to the directions on this label.
- **Re-entry:** Do not enter the treated area within 1 day after treatment unless wearing protective clothing.
- **In the case of poisoning, take the patient immediately to the doctor and show this label to him.**
- **PLUMETT** 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 **PLUMETT** to a limited test area before commercial applications are made.
- **Aerial application:** Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not apply over water bodies and ensure that spray drift will not contaminate areas not under treatment.

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 (Overalls, protective rubber gloves, rubber boots and goggles or face shield) when mixing and applying the product.
- Wash with plenty of 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.
- Immediately remove all contaminated clothing and shoes.
- 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, especially if bees are visiting blooming crops.
- **Do not** spray during periods of bee activity.

- 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 in the prescribed manner.
- **Never** re-use the empty container for any other purpose.
- Empty containers must be destroyed by perforation and flattening and then disposed of in a safe way.

SYMPTOMS OF HUMAN POISONING

There are no known specific symptoms of poisoning. If the patient experiences discomfort, or if poisoning is suspected, the following first aid instructions must be adhered to:

FIRST AID TREATMENT

- **If poisoning is suspected:** Remove the patient from the source of the poisoning to a well-ventilated area and keep them calm and at rest. Avoid contact with the skin, eyes and clothing and remove any contaminated clothing. If any difficulties occur, seek medical attention. Show the container, label and / or safety data sheet to the physician. Keep the airway open in order to maintain breathing, especially if the patient is unconscious or has vomited. Do not apply direct mouth-to-mouth respiration.
- **Ingestion: Seek medical assistance immediately.** Give the patient large quantities of water to drink. Induce vomiting by touching the back of the mouth if the patient is alert. Have the patient rinse their mouth with water if they are conscious and alert. **Never give anything by mouth to an unconscious person.** Treat respiratory difficulty with artificial respiration as well as oxygen. The administration of oxygen and lavage must be performed by qualified medical personnel.
- **Eye contact:** Immediately flush contaminated eyes for at least 15 minutes using clean, cold water. The upper and lower eyelids should occasionally be lifted. Seek medical assistance if irritation persists.
- **Skin contact:** Immediately remove contaminated clothing and wash the contaminated area/s with plenty of non-abrasive soap and cold water. Do not rub the skin. Seek medical assistance if irritation persists.
- **Inhalation:** Remove the patient to fresh air if the exposure is excessive. If breathing is difficult or if irritation occurs and persists, seek medical assistance. Do not apply direct mouth-to-mouth respiration.

NOTE TO PHYSICIAN

No specific antidote is known. Symptomatic and supportive treatment is indicated.

RESISTANCE MANAGEMENT

For resistance management, **PLUMETT** is a group code 13 insecticide. Any insect population may contain individuals naturally resistant to **PLUMETT** and other group code 13 insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **PLUMETT** or any other group code 13 insecticide.

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.

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 **PLUMETT** 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.

MODE OF ACTION

PLUMETT acts by uncoupling the electron transport chain in the mitochondria, thus inhibiting the synthesis of the energy carrying molecule ATP. **PLUMETT** is an insecticide and miticide with mainly

stomach activity and some contact action. **PLUMETT** exhibits good translaminar, but limited systemic, activity in plants. It has an oral and contact mode of action on all stages of insects and mites as listed below.

GENERAL INFORMATION

- Apply in sufficient water to ensure thorough coverage of both the leaf surfaces, all stems and all branches.

- Proper timing of the application of **PLUMETT** is essential for optimum control and, therefore, regular inspection of orchards or crops is recommended.

- If the spray-water pH is greater than 7.0, the addition of a suitable acidifying surfactant is recommended in order to increase penetration into the leaf.

- For the control of Spider mites, banded fruit weevil (Snoutbeetle), or Potato Tuber Moth, applications of **PLUMETT** should be alternated with suitably registered products with different modes of action in order to reduce the risk of resistance development.

- For the control of mites, apply as soon as the adult female mites appear.

- **Note:** If the first application for the control of thrips on apples is performed at 75% petal drop, then Thrip damage may have already occurred on the young fruit, prior to application. As this damage is of a permanent nature, **PLUMETT** will only be able to prevent further damage.

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 40 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 280 – 300 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, 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 ºC.
- 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.**

USE RESTRICTIONS

- 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** exceed a maximum of 2 applications of **PLUMETT** per season on apples, grapes and nectarines.
- **DO NOT** exceed a maximum of 5 applications of **PLUMETT** per season on potatoes.

DIRECTIONS FOR USE
Use only as directed.

All spray applications must be made with suitable equipment that is in good working order and is correctly calibrated to give the required coverage for that particular method of application.

COMPATIBILITY

The compatibility of **PLUMETT** 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 **PLUMETT** with other products, follow all label instructions of the respective products carefully. In the case of any uncertainty, contact the supplier or the registration holder.

MIXING INSTRUCTIONS

Half-fill the spray tank with suitable water, then mix the required amount of **PLUMETT** with water in a bucket or mixing tank. Add the **PLUMETT** mixture and the balance of the water to the spray tank while agitating. Maintain constant, thorough agitation throughout mixing and spraying. **Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight.** The spraying equipment must be thoroughly flushed out at the end of the spraying operation.

APPLICATION RATES

CROP/PEST	APPLICATION RATE	REMARKS
Apples		
Banded Fruit Weevil (Snoutbeetle) (*Phlyctinus callosus*)	35 mℓ / 100 ℓ water.	Apply from 75% petal fall when banded fruit weevils have been observed in cardboard traps or feeding on the lower shoots. In high infestation pressure situations early in the season, a second application should be made 14 days later. Regular monitoring for banded fruit weevil must be maintained throughout the season. If a third application is necessary, an unrelated product such as **LAMBADA AQUAMUL** should be used. Using the tree row volume formula to determine the volume of water to use per ha, apply as a high volume spray. Ensure thorough wetting of the tree. See "**GENERAL INFORMATION**" above.
Thrips	35 mℓ / 100 ℓ water.	Apply at early blossom (before bees are introduced to the orchard) and repeat at the same dosage at 75% petal drop (after bees have been removed from the orchard). Using the tree row volume formula to determine the volume of water to use per ha, apply as a high volume spray. Ensure thorough wetting of the tree. These treatments should also control banded fruit weevil and early infestations of red spider mite if present at the time of the application. See "**GENERAL INFORMATION**" above.
Citrus		
Thrips (*Scirtothrips aurantii)*	30 mℓ / 100 ℓ water.	**Bearing trees:** Apply as a medium cover spray at 90 – 100% petal drop. Ensure that the application is made before calyx closure. **Non-bearing and nursery trees:** Apply **PLUMETT** to each new growth flush. Do not exceed a maximum of 4 applications per season. In orchards where Mealy bug is a regular pest, use **PLUMMETT** only when it is under commercial control. See "**GENERAL INFORMATION**" above.

Cruciferae (only cabbage) Diamond Back Moth Larvae (*Plutella xylostella*)	 40 mℓ / 100 ℓ. 200 mℓ / ha 4 mℓ / 10 ℓ water	 **1. Directed Row Application:** **Low infestations** Begin application soon after transplanting (when the plants are established) and repeat application every 7 – 10 days. **High infestations** Spray intervals must be reduced to 7 days. This should also be done during warm weather conditions. **PLUMETT** should be used preventatively and not as a corrective treatment. The entire plant must be sprayed to the point of run-off. A spray volume of 200 ℓ water / ha should be used on small plants and increased to 600 ℓ water / ha as the plants grow. **A minimum of 1.2 ℓ mixture / 100 m planted row should be sprayed.** The addition of a suitable wetter such as Wet-All is recommended. For resistance management, it is recommended not to apply more than 4 applications of **PLUMETT** per growing season. Replace any later applications in the programme with a registered product with a different mode of action. **1. Overall application:** Apply as recommended above for a **Directed Row Application**, but use 600 – 800 ℓ water / ha **2. Home Garden** Apply **PLUMETT** preventatively. Apply the first spray soon after transplanting when the seedlings are established. Spray the entire plant to the point of run-off. Repeat the applications at 7 – 10 day intervals. Do not exceed a maximum of 4 applications of **PLUMETT** per season. If required, apply a registered remedy with a different mode of action later in the season. See "**GENERAL INFORMATION**" above.
Table Grapes For use in the Western Cape only Banded Fruit Weevil (Snoutbeetle) (*Phlyctinus callosus*)	35 mℓ / 100 ℓ water	Apply when banded fruit weevils have been observed in cardboard traps or feeding on the lower shoots. In high infestation pressure situations early in the season, a 2nd application may be done after 14 days. Regular monitoring of banded fruit weevil must be maintained throughout the season. If a 3rd application is necessary, a suitable registered product with a different mode of action should be used. Apply as a high volume spray. Ensure thorough wetting of the vine. See "**GENERAL INFORMATION**" above.

Nectarines Banded Fruit Weevil (Snoutbeetle) (*Phlyctinus callosus*)	 35 mℓ / 100 ℓ water	 Apply when banded fruit weevils have been observed in cardboard traps or feeding on the lower shoots. In high infestation pressure situations early in the season, a 2nd application may be done after 14 days. This application may also control thrips and Red spider mite if present at the time of the application. Regular monitoring of banded fruit weevil must be maintained throughout the season. If a 3rd application is necessary, a suitable registered product with a different mode of action should be used. Apply as a high volume spray. Ensure thorough wetting of the vine. See "**GENERAL INFORMATION**" above.
Potatoes Potato tuber moth larvae (*Phthorimaea operculella*)	 300 mℓ / ha 400 mℓ / ha	 **Ground application:** Apply **PLUMETT** preventatively as a full cover spray from when the first moths are present. Apply a minimum of 500 ℓ spray mixture / ha. Repeat the application at 14 day intervals. Regular monitoring for potato tuber moth must be maintained throughout the growing season. It is recommended to reduce the spray interval to 7 days when conditions of rapid crop growth occur or under high infestation pressure of tuber moth larvae. Ensure that proper ridging has been performed at least twice during the growing season. In cases where the crop is to be left in the ground, ensure that there are no cracks in the soil covering the rows through which the moths could gain access to the potato tubers. **Aerial application:** Apply as above for ground application by applying in 40 ℓ water / ha.
Tomatoes Red spider mites (*Tetranychus urticae (cinnabarinus), Tetranychus lombardinii)*	 40 mℓ /100 ℓ water (350 – 700 mℓ / ha)	 Apply **PLUMETT** at the first signs of infestation as a full cover, high volume and high pressure spray to the point of run-off. Apply up to 2 000 ℓ spray mixture per ha. If less than 1 250 ℓ spray mix / ha is used, see the minimum dosage rates below: **Minimum volumes of PLUMETT to be applied per ha:** • Plants < 40 cm tall: 350 mℓ / ha. • Plants > 40 cm tall: 500 mℓ / ha. • Severe mite pressure: do not use less than 500 mℓ / ha. Ensure thorough wetting and full spray coverage of all leaves and fruit. Repeat the application if necessary.

ACKNOWLEDGEMENT OF TRADEMARKS

Wet-All (L 8361)	Arysta Lifescience South Africa (Pty) Ltd.
Lambada aquamul (L 9583)	Meridian Agrochemical Company (Pty) Ltd.

WAARSKUWINGS

Onthoudingsperiode:
Laat die volgende minimum aantal dae tussen laaste behandeling, oes en weiding toe**:**

Appels………..…........... 30 dae
Sitrus.. 140 dae
Koolgewasse...…................. 7 dae
Tafeldruiwe..………... 80 dae
Nektariens…………………………………………………………..……………..…………………..30 dae
Aartappels…………………………………………………………………………………………..…14 dae
Tamaties……………………………………………………………………………………...………...3 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. Indien die behandelde gewas bestem is vir uitvoer, skakel die betrokke invoer- of uitvoerliggaam rakende die Maksimum Residu Vlakke (MRL) en aanbevole onthoudingsperiodes vir die gebruik van hierdie produk.

- Hanteer versigtig.
- Skadelik deur inaseming en indien ingesluk.
- Giftig vir visse, voëls, bye, ander diere en ander waterorganismes.
- Mag irritasie aan die vel en oë veroorsaak.
- Berg agter slot-en-grendel in die oorspronklike houer in 'n koel, droë, goed geventileerde plek.
- Berg weg van voedsel, voer, saad en kunsmis.
- Hou produk weg van direkte sonlig.
- Vermy berging by temperature bokant 37 °C.
- Moet nie naby bronne van hitte stoor nie.
- Hou buite bereik van kinders, oningeligte persone en diere.
- Die gebruik van hierdie produk in 'n wyse of op 'n tyd anders as in ooreenstemming met die aanwysings op die etiket, kan oormatige residue of ander ongewenste resultate veroorsaak.
- Moet nie hierdie produk gebruik in enige manier strydig met die aanwysings op die etiket nie.
- **Herbetreding**: Moet nie die behandelde gebied binne 1 dag na behandeling betree nie, tensy beskermende oorklere gedra word.
- **In die geval van vergiftiging, neem die pasiënt onmiddellik na die dokter en toon hierdie etiket aan hom/haar.**
- **PLUMETT** is sonder enige fitotoksisiteitskade op die mees belangrikste kommersiële kultivars getoets. Meer vatbare kultivars mag in die toekoms vrygestel word wat eers getoets moet word; hiervoor moet **PLUMETT** eers op ‘n klein toetsoppervlakte aangewend word, alvorens groot kommersiële bespuitings gemaak word.
- **Lugtoediening:** Stel alle inwoners in die onmiddellike omgewing van die gebied wat bespuit gaan word in kennis, en reik die nodige waarskuwings uit. Moet nie oor waterbronne spuit nie en verseker dat die spuitnewel nie oorwaai en gebiede besoedel wat nie onder behandeling is nie.

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.

VOORSORGMAATREËLS

- Moet nie dampe of spuitnewel inasem nie.
- Vermy vel en oogkontak deur die dra van beskermende klere (oorpak, beskermende rubberhandskoene, stewels en brille of gesigskerm) tydens vermenging en toediening van die produk.
- Was met baie seep en koue water onmiddellik na gebruik en na toevallige velkontak.
- Was besoedelde klere na gebruik.

- Alle persone in direkte kontak met die produk, insluitend merkers, moet beskermende klere, beskermende handskoene, stewels en gesigskerm dra.
- Verwyder alle besoedelde klere en skoene.
- Moet nie eet, drink of rook tydens vermenging of toediening van die produk of voordat hande en gesig gewas is.
- Vermy spuitnewelwegdrywing na ander gewasse, weiding, riviere, damme en areas nie onder behandeling nie, veral as bye blommende gewasse besoek.
- **Moet nie** spuit gedurende tye wanneer bye aktief is nie. Maak toedieningsapparaat skoon na gebruik. Raak ontslae van die spoelwater waar dit nie gewasse, weiding, riviere, damme en boorgate sal besoedel nie. Voorkom besoedeling van voedsel, voer, drinkwater en eetgerei.
- Leë houers moet **drie keer** uitgespoel word met 'n volume skoon water gelykstaande aan minstens 10% van die houer. Gooi die spoelwater by die spuittenk voordat die houer op die voorgeskrewe wyse vernietig word.
- **Moet nooit** weer die leë houer vir enige ander doel gebruik nie.
- Leë houers moet vernietig word deur gate daarin te maak en plat te slaan en op ‘n veilige wyse daarvan ontslae te raak.

SIMPTOME VAN VERGIFTIGING

Daar is geen bekende spesifieke simptome van vergiftiging nie. Indien die pasiënt ongemak ervaar, of indien vergiftiging vermoed word, moet die volgende noodhulpbehandeling gevolg word:

NOODHULPBEHANDELING

- **Indien vergiftiging vermoed word:** Verwyder die pasiënt van die bron van die vergiftiging na 'n goed geventileerde area en hou hulle kalm en rustig. Vermy kontak met die vel, oë en klere en verwyder enige besoedelde klere. Indien enige probleme voorkom, kry mediese hulp. Wys die houer, etiket en/of veiligheidsgegewensblad aan die geneesheer. Hou die lugweg oop om asemhaling te bevorder, veral as die pasiënt bewusteloos is of gebraak het. Moet nie direkte mond-tot-mond-asemhaling toedien nie.
- **Ingesluk: Verkry onmiddellik mediese hulp.** Gee die pasiënt groot hoeveelhede water om te drink. Induseer braking deur die agterkant van die mond te prikkel indien die pasiënt wakker is. Laat die pasiënt hul mond uitspoel met water as hulle by bewussyn is en wakker is. **Moet nooit iets per mond aan 'n bewustelose persoon gee nie.** Behandel asemhalingsprobleme met kunsmatige asemhaling asook suurstof. Die toediening van suurstof en maagspoeling moet deur gekwalifiseerde mediese personeel gedoen word.
- **Oogkontak:** Spoel besmette oë onmiddellik uit vir ten minste 15 minute met skoon, koue water. Die boonste en onderste ooglede moet gereeld opgelig word. Verkry mediese hulp indien irritasie voortduur.
- **Velkontak:** Verwyder besoedelde klere onmiddellik en was die besmette area(s) met baie koue water en ‘n nie-skurende seep. Moet nie die vel vryf nie. Verkry mediese hulp indien irritasie voortduur.
- **Inaseming:** Verwyder die pasiënt na vars lug indien die blootstelling oormatig is. Indien asemhaling moeilik is, of irritasie voorkom en voortduur, kry mediese hulp. Moet nie direkte mond-tot-mond-asemhaling toepas nie.

NOTA AAN GENEESHEER

Geen spesifieke teenmiddel is bekend nie. Simptomatiese en ondersteunende behandeling word aanbeveel.

WEERSTANDSBESTUUR

Vir weerstandsbestuur is **PLUMETT** 'n groepkode 13 insekdoder. Enige insekpopulasie mag individue bevat wat natuurlike weerstandbiedendheid teen **PLUMETT** en ander groepkode 13 insekdoder het. Die weerstandbiedende individue kan uiteindelik die insekpopulasie oorheers indien hierdie insekdoders herhaaldelik aangewend word. Hierdie weerstandbiedende insekte sal waarskynlik nie deur **PLUMETT** of enige ander groepkode 13 insekdoder beheer word nie.

Om weerstand teen insekdoders te vertraag
• Vermy die eksklusiewe herhaaldelike gebruik van insekdoders van dieselfde groepkode.
• Wissel af met, of gebruik tenkmengsels van, produkte in verskillende insekdodergroepkodes.
• Integreer ander beheermaatreëls (chemies, verbouing, biologies) in insekbeheerprogramme.

Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk.

Aangesien die voorkoms van weerstand nie voorspel kan word nie, word gebruikers aangeraai om behandelde plante noukeurig dop te hou. Indien die behandeling nie doeltreffend is nie as gevolg van die gebruik van **PLUMETT** soos aanbeveel, mag 'n weerstandbiedende ras teenwoordig wees. As 'n weerstandbiedende ras positief geïdentifiseer word, moet onmiddellike oorweging geskenk word aan die gebruik van 'n insekdoder met 'n ander metode van werking waarvoor daar geen rekord van weerstand teen die betrokke insek is nie.

METODE VAN WERKING

PLUMETT werk deur die ontkoppeling van die elektrontransportketting in die mitochondria, dus inhibeer dit die sintese van die energiedraende-molekule ATP. **PLUMETT** is 'n insekdoder en mytdoder met hoofsaaklik maagwerking en gedeeltelike kontakaksie. **PLUMETT** het goeie translaminêre, maar beperkte sistemiese werking in plante. Dit het 'n mondelinge en kontak metode van werking op alle stadiums van insekte en myte soos hieronder gelys.

ALGEMENE INLIGTING

- Dien toe in genoeg water om deeglike bedekking van beide die blaaroppervlakke, alle stamme en alle takke te verseker.
- Behoorlike tydsberekening van die toediening van **PLUMETT** is noodsaaklik vir optimale beheer en daarom word gereelde inspeksie van boorde of gewasse aanbeveel.
- Indien die spuit-water pH hoër as 7.0 is, word die byvoeging van 'n geskikte versurende benatter aanbeveel om penetrasie in die blaar te verhoog.
- Vir die beheer van Spinmyte, gebande vrugte kalander (Snuitkewer), of Aartappelmot, moet toedienings van **PLUMETT** afgewissel word met geskikte geregistreerde produkte met verskillende metodes van werking om die risiko vir die ontwikkeling van weerstand te verminder.
- Vir die beheer van myte, dien toe sodra die volwasse wyfiemyte verskyn.
- **Nota**: Wanneer die eerste toediening vir die beheer van Blaaspootjie op appels uitgevoer word teen 75% blomblaarval, mag blaaspootjie-skade alreeds op die jong vrugte voor die toediening voorgekom het. Aangesien hierdie skade van 'n permanente aard is, sal **PLUMETT** slegs in staat wees om verdere skade te voorkom.

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 Remedies) 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 noodsaaklik om aan die volgende vereistes te voldoen:

Toerusting

- Gebruik geskikte atomiseringsapparaat wat die vereiste druppelgrootte en bedekking van die teikenarea sal produseer en die minimum 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 geposisioneer wees om te verhoed dat druppels binne-in die vlerkpuntvorteks in beweeg.

Toedieningsvereistes

- 'n Minimum volume van 40 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 gehou word vir enige nadelige effekte 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 280-300 mikrons word aanbeveel. Verseker dat die produksie van fyn druppels, met ‘n VMD kleiner as 150 mikron, tot 'n minimum beperk word.
- Die hoogte van die spuitbalk moet tussen 3 en 4m bokant die teiken wees.

- Moet nie spuit wanneer die vliegtuig besig is om te klim, te draai, te duik of besig is om uit te klim nie.

Meteorologiese toestande

- Die verskil tussen die nat- en droëbollesing, soos bepaal met behulp van 'n swaai-higrometer, moet nie meer as 8 ºC wees nie.
- Moenie tydens turbulente, onstabiele weerstoestande toedien, of gedurende die hitte van die dag wanneer stygende en dalende konveksie windbeweging plaasvind nie.
- Moenie onder temperatuurinversie-toestande (deur bokant of binne-in die inversielaag te spuit) en/of hoë lugvogtoestande spuit nie, want dit kan lei tot:
    i. Verlaagde effektiwiteit a.g.v. die suspensie en verdamping van klein druppels in die lug (wat lei tot onvoldoende bedekking op die teikenarea).
    ii. Skade aan ander sensitiewe gewasse en/of nie-teikenareas a.g.v. die wegdrywing van die spuitwolk van die teikenarea af.
- Moet nie spuit wanneer die windspoed 15 km per uur oorskry nie.

Algemeen

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

GEBRUIKSBEPERKINGS

- Moet nie hierdie produk in kombinasie of tenkmengsel met enige ander produk of landboumiddel gebruik wat nie spesifiek op hierdie etiket gelys is nie. Meridian Agrochemical Company (Edms.) Bpk. aanvaar geen verantwoordelikheid vir enige negatiewe gevolge indien die instruksies op die etiket nie nagekom word nie, tensy ‘n Meridian verteenwoordiger vooraf geraadpleeg is.
- **MOENIE** 'n maksimum van 2 toedienings van **PLUMETT** per seisoen op appels, druiwe en nektariens oorskry nie.
- **MOENIE** 'n maksimum van 5 toedienings van **PLUMETT** per seisoen op aartappels oorskry nie.

GEBRUIKSAANWYSINGS
Gebruik slegs soos aangedui.

Alle toedienings moet gemaak word met geskikte toerusting wat in goeie werkende toestand en korrek gekalibreer is om die vereiste bedekking vir die spesifieke metode van toediening te verseker.

VERENIGBAARHEID

Die verenigbaarheid van **PLUMETT** met ander produkte hang van die formulerings van die betrokke produkte af, asook van die kwaliteit van die spuitwater wat gebruik word. Deurdat formulerings van tyd tot tyd verander, word dit aanbeveel om 'n fisiese verenigbaarheidstoets te doen, voordat ‘n tenkmengsel gemaak word. Wanneer **PLUMETT** met ander produkte gemeng word, moet die etiketaanwysings van die onderskeie produkte noukeurig gevolg word. In die geval van enige onsekerheid, kontak die verskaffer of die registrasiehouer.

MENGINSTRUKSIES

Maak die spuittenk halfvol met skoon water en meng die vereiste hoeveelheid **PLUMETT** met water in 'n emmer of mengbak. Voeg die **PLUMETT**-mengsel by die water in die spuittenk en vul die spuittenk tot by die aanbevole volume met water terwyl geroer word. Handhaaf konstante, deeglike roering gedurende vermenging en tydens bespuiting. **Tenkmengsels moet onmiddellik uitgespuit word en nie toegelaat word om oornag in die spuittenk te staan nie.** Die spuittoerusting moet deeglik uitgespoel word aan die einde van die toediening.

AANBEVELINGS

GEWAS / PLAAG	DOSIS	OPMERKINGS
Appels		
Gebande Vrugtekalander (Snuitkewer) (*Phlyctinus callosus*)	35 mℓ / 100 ℓ water.	Dien vanaf 75% blomblaarval toe, wanneer gebande vrugtekalanders in kartonlokvalle opgemerk, of vreetmerke op waterlote gewaar word. In hoë-infestasiedruksituasies vroeg in die seisoen, moet 'n tweede toediening 14 dae later gedoen word. Gereelde monitering vir gebande vrugtekalander moet regdeur die seisoen gehandhaaf word. Indien 'n derde toediening nodig sou wees, moet 'n onverwante produk soos LAMBADA AQUAMUL gebruik word. Dien toe as 'n hoë-volume bespuiting deur gebruik te maak van die boomryvolume-formule om die volume van die water per ha wat gebruik moet word, te bepaal. Verseker deeglike benatting van die boom. Sien "**ALGEMENE INLIGTING**" hierbo.
Blaaspootjies	35 mℓ / 100 ℓ water.	Dien met vroeëblom toe (voordat bye in boord kom) en herhaal teen dieselfde dosis teen 75%-blomblaarval (nadat bye uit die boord verwyder is). Dien toe as 'n hoë-volume bespuiting deur gebruik te maak van die boomryvolume-formule om die volume van die water per ha wat gebruik moet word te bepaal. Verseker deeglike benatting van die boom. Hierdie behandelings sal ook gebande vrugtekalander en vroeë infestasies van rooispinmyt beheer indien teenwoordig met die tyd van toediening. Sien "**ALGEMENE INLIGTING**" hierbo.
Sitrus		
Blaaspootjies (*Scirtothrips aurantii)*	30 mℓ / 100 ℓ water.	Draende bome**:** Dien toe as 'n medium dekbespuiting teen 90 - 100% blomblaarval. Maak seker dat die bespuiting voor kelksluiting gedoen word. Nie-**draende en kwekery** bome**:** Dien PLUMETT toe met elke nuwe groeistadium. Moenie 'n maksimum van 4 toedienings per seisoen oorskry nie. In boorde waar witluis 'n gereelde plaag is, gebruik PLUMETT slegs wanneer dit onder kommersiële beheer is. Sien "**ALGEMENE INLIGTING**" hierbo.

Koolgewasse (slegs kool) Ruitrugmotlarwes (*Plutella xylostella*)	 40 mℓ / 100 ℓ. 200 mℓ / ha 4 mℓ / 10 ℓ water	1. Gerigte Rybespuiting: Lae infestasies Begin toediening kort na uitplant (wanneer die plante gevestig is) en herhaal toediening elke 7 - 10 dae. Hoë infestasies Spuitintervalle moet verminder word na 7 dae. Dit moet ook gedoen word tydens warm weerstoestande. PLUMETT moet voorkomend gebruik word, en nie as 'n korrektiewe behandeling gebruik word nie. Die hele plant moet gespuit word tot die punt van afloop. 'n Spuitvolume van 200 ℓ water / ha moet gebruik word op klein plante en verhoog word na 600 ℓ water / ha soos die plante groei. 'n Minimum van 1.2 ℓ mengsel / 100 m **plant** ry moet toegedien word. Die byvoeging van 'n geskikte benatter soos Wet-All word aanbeveel. Vir weerstandsbestuur, word dit aanbeveel om nie meer as 4 toedienings van PLUMETT per groeiseisoen toe te dien nie. Vervang enige latere bespuitings in die program met 'n geregistreerde produk met 'n ander metode van werking. 1. **Algehele Toediening:** Dien toe soos hierbo aanbeveel vir 'n **Gerigte Rybespuiting**, maar gebruik 600 – 800 ℓ water / ha **2. Huishoudelike Tuine:** Dien PLUMETT voorkomend toe. Dien die eerste bespuiting kort na uitplant toe wanneer die saailinge gevestig is. Spuit die hele plant tot die punt van afloop. Herhaal die bespuitings met 7 - 10 dae intervalle. Moenie 'n maksimum van 4 toedienings van PLUMETT per seisoen oorskry nie. Indien nodig, dien 'n geregistreerde middel met 'n ander metode van werking later in die seisoen toe. Sien "**ALGEMENE INLIGTING**" hierbo.
Tafeldruiwe Slegs vir gebruik in die Wes-Kaap Gebande Vrugte Kalander (Snuitkewer) (*Phlyctinus callosus*)	35 mℓ / 100 ℓ water	Dien toe wanneer gebande vrugte kalanders waargeneem word in kartonlokvalle of vreetmerke op die waterlote gesien word. In hoë infestasiedruk situasies vroeg in die seisoen, kan 'n 2de bespuiting gedoen word na 14 dae. Gereelde monitering van gebande vrugtekalander moet regdeur die seisoen gehandhaaf word. As 'n 3de bespuiting nodig sou wees, moet 'n geskikte geregistreerde produk met 'n ander metode van werking gebruik word. Dien as 'n hoë-volumebespuiting toe. Verseker deeglike benatting van die wingerdstok. Sien "**ALGEMENE INLIGTING**" hierbo.

Nektariens Gebande Vrugtekalander (Snuitkewer) (*Phlyctinus callosus*)	 35 mℓ / 100 ℓ water	 Dien toe wanneer gebande vrugte kalanders waargeneem word in kartonlokvalle of vreetskade op die laer lote gesien word. In hoë infestasiedruk situasies vroeg in die seisoen, kan 'n 2de bespuiting gedoen word na 14 dae. Hierdie toediening kan ook Blaaspootjie en Rooispinmyt beheer indien teenwoordig met bespuiting. Gereelde monitering van gebande vrugtekalander moet regdeur die seisoen gehandhaaf word. As 'n 3de bespuiting nodig is, moet 'n geskikte geregistreerde produk met 'n ander metode van werking gebruik word. Dien as 'n hoë-volumebespuiting toe. Verseker deeglike benatting van die boom. Sien "**ALGEMENE INLIGTING**" hierbo.
Aartappels Aartappelmotlarwe (*Phthorimaea operculella*)	 300 mℓ / ha 400 mℓ / ha	 Grondtoediening: Dien PLUMETT voorkomend toe as 'n volle dekbespuiting vandat die eerste motte teenwoordig is. Dien 'n minimum van 500 ℓ spuitmengsel/ ha toe. Herhaal die toediening elke 14 dae. Gereelde monitering vir aartappelmot moet regdeur die seisoen gehandhaaf word. Dit word aanbeveel om die spuitintervalle te verminder tot 7 dae wanneer toestande van vinnige gewasgroei voorkom of onder hoë-infestasiedruk van Aartappelmotlarwes. Verseker dat behoorlike operd minstens twee keer gedurende die seisoen uitgevoer word. In gevalle waar die gewas in die grond gelos word, maak seker dat daar geen krake in die grond wat die rye bedek is nie, waardeur die motte toegang tot die moere kan kry nie. Lugtoediening: Dien toe soos hierbo vir grondtoediening deur die toediening in 40 ℓ water / ha.
Tamaties Rooispinmyt (*Tetranychus urticae (cinnabarinus), Tetranychus lombardinii)*	 40 mℓ /100 ℓ water (350 – 700 mℓ / ha)	 Dien PLUMETT toe by die eerste tekens van besmetting as 'n volle dekbespuiting, hoë-volume en hoë-drukbespuiting tot die punt van afloop. Dien tot 2 000 ℓ spuitmengsel per ha. Indien minder as 1 250 ℓ spuitmengsel / ha gebruik word, sien die minimum dosis hoeveelhede hieronder: Minimum volumes PLUMETT wat per ha toegedien moet word: • Plante < 40 cm hoog: 350 mℓ / ha. • Plante > 40 cm hoog: 500 mℓ / ha. • Ernstige hoë mytdruk: Moet nie minder as 500 mℓ / ha gebruik nie. Verseker deeglike benatting en volbedekking van alle blare en vrugte. Herhaal die toediening indien nodig.

ERKENNING VAN HANDELSMERKE

Wet-All (L 8361)	Arysta Lifescience South Africa (Edms.) Bpk.
Lambada aquamul (L 9583)	Meridian Agrochemical Company (Edms.) Bpk.