

OBSTRUCTO PRIME 325 SC

Act No. 36 of 1947

SA Reg. No. L11505 / NAM Reg. No. N-AR 2336

A suspension concentrate, systemic fungicide with contact and translaminar action for the preventative control of diseases on crops as listed.

ACTIVE INGREDIENTS:

Azoxystrobin 200 g/ℓ
Difenoconazole 125 g/ℓ

REGISTERED BY:

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WARNINGS

Harmful if inhaled
Causes serious eye irritation
May cause an allergic skin reaction
Very toxic to aquatic life with long lasting effects

WITHHOLDING PERIODS (Minimum number of days between last application and harvest):

Brassica (broccoli, cabbage, brussels sprouts, cauliflower, kale) 3 Days
Bulb vegetables (bulb onions, chives, garlic, leek) 7 Days
Carrots 7 Days
Cucurbits (melon, watermelon, pumpkin, squash, zucchini, cucumber, gherkin, excluding patty pans) 3 Days
Cucurbits (patty pans) 1 Day
Dry beans 45 Days
Grain Sorghum 14 Days
Groundnuts 28 Days
Nuts (almonds) 28 Days
Nuts (cashew, macadamia, pecan) 45 Days
Nuts (pistachio) 14 Days
Maize/Sweetcorn * See Note
Peppers (bell/sweet/chilli pepper, paprika, pimento, piquant) 7 Days
Pomegranates 100 Days
Potatoes 14 Days
Tomatoes 7 Days

***NOTE (Maize/Sweetcorn):** Adhere to a withholding period of 28 days if the lower dosage is applied and 3 months for the higher dosage. **DO NOT** allow any grazing if the higher dosage is applied.

Compliance with withholding periods and application methods will ensure that residues do not exceed local maximum residue limits (MRL) but may not meet the import requirements of other countries. If the crop to be treated is intended for export, consult the relevant importer or exporting body regarding the use of this product, MRL and recommended withholding period. Although **Obstructo Prime 325 SC** is regarded as crop-safe on most of the important cultivars, this does not mean that a more sensitive cultivar might be available in future. **Obstructo Prime 325 SC** must be tested on new cultivars prior to usage over big areas.

RE-ENTRY INTERVAL: Do not enter treated area within 24 hours after application/until spray deposit has dried, unless wearing full protective clothing. Wash protective clothing after use.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be efficacious under all conditions, because the action and effect thereof may be affected by factors such as abnormal climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the disease 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, and the environment or harm to man/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

If medical advice is needed, have product container or label at hand.
Avoid breathing mist and spray.
Wash hands and face thoroughly after handling. Do not touch eyes.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.
Wear protective gloves, protective clothing, eye and face protection.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical help.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical help.

For specific treatment, see first aid measures.
Take off contaminated clothing and wash it before reuse.
Collect spillage.
Store locked up.
Dispose of contents and container in accordance with national regulations.

TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS: Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.

RELEVANT SUBSTANCES:

Azoxystrobin (Cas no: 131860-33-8) Acute Inhalation Toxicity Category 4, H332; Aquatic Acute Category 1, H400; Aquatic Chronic Category 1, H410 (20 % w/v).

Difenoconazole (Cas no: 119446-68-3) Acute Oral Toxicity Category 4, H302; Eye Irritation Category 2, H319; Aquatic Acute Category 1, H400; Aquatic Chronic Category 1, H410 (12.5 % w/v).

1,2-benzisothiazol-3-one (Cas no: 2634-33-5) Skin Sensitization Category 1, H317 (< 1 % w/v).

FIRST AID TREATMENT

In case of accident or if you feel unwell seek medical advice immediately and show this LABEL where possible

- INHALATION:**
- Remove the victim from immediate source of exposure. Move victim to fresh air, if it can be done safely, and keep comfortable. If victim's breathing has stopped, perform artificial respiration.
 - DO NOT perform mouth-to-mouth resuscitation if victim ingested or inhaled the substance; wash face and mouth before giving artificial respiration. Use a pocket mask equipped with a one-way valve or other proper respiratory medical device.
 - Administer oxygen if victim's breathing is difficult or irregular and get medical help.
- SKIN:**
- Remove and isolate contaminated clothing, shoes, and leather goods and take a shower.
 - Rinse affected areas with non-abrasive soap or mild detergent and large amounts of running water. Wash contaminated clothing before reuse.
 - Get medical help if irritation develops and persists.
- EYES:**
- Rinse eyes cautiously with clean water for at least 15 minutes, while holding eyelids apart. Remove contact lenses after 5 minutes if present and easy to do. Continue rinsing while holding eyelids apart. Seek medical help if irritation continues.
- INGESTION:**
- If swallowed, rinse mouth, DO NOT induce vomiting, unless instructed to do so by poison control centre or doctor.
 - Have person sip a glass of water if able to swallow. Never give anything by mouth to an unconscious person. If vomiting does occur, keep on giving fluids. Get medical help.
- NOTE TO PHYSICIAN:**
- There is no specific antidote. All treatments should be based on observed signs and symptoms of distress in the patient.
- POTENTIAL HEALTH EFFECTS:**
- No significant adverse effects were reported. Slight irritation is possible for eyes. Effects of exposure (inhalation, ingestion, or skin contact) to substance may be delayed.

RESISTANCE WARNING

For resistance management: Obstructo Prime 325 SC consist of group codes (11) and (3) fungicides. Any fungal population may contain individuals naturally resistant to **Obstructo Prime 325 SC** and other group code (11) and (3) fungicides. The resistant individuals can eventually dominate the fungal population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **Obstructo Prime 325 SC** or any other group code (11) and (3) fungicides.

To prevent or delay fungicide resistance:

- avoid exclusive repeated use of fungicides from the same fungicide group code. Alternate or tank mix with registered products from different fungicide group codes,
- for tank mixing or alternation with products in other fungicide group codes, refer to individual product labels,
- integrate other forms of control methods (chemical, cultural, biological) into disease control programme,
- where resistance has been confirmed or previously suspected do not apply **Obstructo Prime 325 SC** alone but in combination with suitable partners from different fungicide group codes. This management strategy to prevent resistance should, however, not include fungicide products to which resistance has already developed in the past, or fungicides using the same mode of action,
- for specific information on resistance management, contact the registration holder of this product, or contact your local supplier,
- visit the FRAC website at <https://www.frac.info/> for more information,
- in order to maintain the efficacy of **Obstructo Prime 325 SC**, it is necessary to prevent the development of resistance of the diseases against the (11) and (3) fungicide groups.

MODE OF ACTION

Azoxystrobin belongs to the strobilurin class of fungicides (FRAC group 11). Strobilurins, also known as QoI fungicides, inhibits mitochondrial respiration leading to an energy deficiency in the fungal cells by halting energy production causing fungal death (inhibiting spore germination, mycelial growth, and sporulation).

Difenoconazole (triazole) is a systemic demethylation inhibiting DMI fungicide with protective, curative and eradicate action. Difenoconazole works by affecting the cell walls of fungi by suppressing spore germination and fungal growth.

USE RESTRICTIONS

- It is important that **Obstructo Prime 325 SC** is applied preventatively, before symptoms appear, as prescribed in the recommendations table.
- Adhere to the dosage rates recommended on the label, DO NOT reduce dosage rate.
- **Obstructo Prime 325 SC** must be applied as a full cover spray.
- Never use **Obstructo Prime 325 SC** as a corrective or curative treatment, when the disease is already present, or after the unsuccessful application of any product.

- When tank mixing or alternating with other fungicides, use registered mixing partners that provide satisfactory disease control when applied alone at the recommended mixing rate.
- Should it rain within two hours after application, the application must be repeated.

DIRECTIONS FOR USE – use only as directed

COMPATIBILITY:

Obstructo Prime 325 SC is compatible with most fungicides, insecticides and acaricides, however avoid products containing heavy metals. The compatibility of **Obstructo Prime 325 SC** with other products depends on the formulations of the respective products as well as the quality of the spray water to be used. Since formulations of other products may change from time to time without our knowledge, and the water quality may vary between farms it is therefore recommended that a small-scale physical compatibility test be done prior to the tank mixture being made. Always consult the labels of products to be tank mixed with **Obstructo Prime 325 SC**.

MIXING INSTRUCTIONS:

Half fill the mixing tank with clean water. Shake the **Obstructo Prime 325 SC** container thoroughly immediately before use and pre-mix the required volume in at least 10 ℓ water. Pre-mix any other product(s) to be tank mixed in the same way separately. While agitating the spray tank water, add the pre-mixed product(s) in the following sequence: buffer/acidifier, wettable powders, water dispersible granules, suspension concentrates, emulsifying concentrates and soluble concentrates last. If mixing partners are packed in water-soluble bags, add the soluble bags first and then **Obstructo Prime 325 SC**. Top up the mixing tank with the required quantity clean water whilst agitating. Agitate constantly before and during application, DO NOT allow tank mixture to settle. **TANK MIXTURES MUST BE SPRAYED OUT IMMEDIATELY AND NOT ALLOWED TO STAND IN THE SPRAY TANK OVERNIGHT.** Spraying equipment must be thoroughly flushed out at the end of the spraying operation.

CLEAN SPRAY EQUIPMENT DIRECTLY AFTER USE: Special care and attention must be taken in cleaning all equipment used in the mixing and application of **Obstructo Prime 325 SC** to avoid damage to other crops.

GROUND APPLICATION:

- **Obstructo Prime 325 SC** can be applied with conventional high volume spray equipment. The nozzles should be fitted with hollow cone tips that give medium to fine droplets.
- Ensure that the equipment is correctly calibrated and is checked regularly to ensure even and accurate application.
- Distribution of the spray mixture must be uniform throughout the target area. Do not let the spray overlap as this can lead to crop damage.
- The distribution of the spray should be uniform throughout the target area, ensuring good coverage of the whole plant (including the stems and leaves) by using sufficient water and suitable spraying equipment. Do not apply through any ultra-low volume (ULV) spray system.
- Repeat the application if it rains within two (2) hours after application.
- Avoid drift onto other crops, grazing, rivers, dams, or areas not under treatment.

AERIAL APPLICATION:

AVOID CHEMICAL DRIFT AT ALL TIMES

Aerial application of **Obstructo Prime 325 SC** may only be done by a registered aerial application operator using a registered and correctly calibrated aircraft according to the instructions of SANS 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. Thorough coverage is essential for effective results. Use only in crops where aerial application is indicated on this label. It is therefore essential that the following criteria are met:

APPLICATION PARAMETERS:

- **Volume:** A minimum spray mixture volume of 30 – 40 ℓ water/ha is recommended unless specified differently in the recommendation tables. Since **Obstructo Prime 325 SC** 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 aurally at a lower volume rate than recommended.
- **Droplet coverage:** A droplet coverage of 25 – 35 droplets per square centimetre (cm²) must be recovered at the target area.
- **Droplet size:** A droplet spectrum with a volume median diameter (VDM) of 280 – 300 microns (µm) is recommended. Ensure the production of fine droplets, with a VMD less than < 150 µm (high drift and evaporation potential), is restricted to a minimum.
- **Flying height:** The height of the spray boom should be maintained between 3 – 4 metres (m) above the target. Do not spray when aircraft is in a climb, at the top or during a dive, or when banking.
- Notify and warn all inhabitants in the immediate area of the intended application and issue the necessary warnings.

EQUIPMENT:

- Use suitable atomising equipment (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and coverage of the target area and will ensure the minimum loss of product either through endodrift (within target field) or exodrift (outside target field).
- The operator must use a nozzle setup that will produce a droplet spectrum with the lowest possible relative span.
- All nozzles or atomisers should be positioned within the inner 60 – 75 % of the wingspan to prevent droplets from entering the wingtip vortices.

METEOROLOGICAL CONDITIONS:

- The difference in temperature between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8 °C.
- Stop spraying if the wind speed exceeds 15 km/h or reduces to less than 5 km/h.
- Do not spray under turbulent, unstable conditions or during the heat of the day when rising thermals and downdraughts occur.
- Do not spray under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions as this may cause:
 - Reduced efficacy due to suspension and evaporation of small droplets in the air (which leads to inadequate coverage).
 - Damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the targeted area.
- Under the following climatic conditions drift could occur up to 3 – 5 km from the nearest spray path of the aircraft:
 - Cloudy weather with relative humidity above 80 % and low air movement of less than 5 km/h.
 - When such conditions occur, aerial application should **NOT** be carried out where sensitive crops, crop seedlings or deciduous fruit trees e.g., apples in budding or early development stages are present within 5 km of the nearest spray path of the aircraft.
- Ensure that fields are accurately marked and that the aerial spray operator knows exactly which fields to spray. Supply the pilot with precise identification of the fields to be sprayed, preferably by means of a map or GPS coordinates. Indicate adjacent environmentally sensitive areas or sensitive neighbouring crops, beehives or water sources that could be affected by the fungicide.

- 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.
- The application must be repeated if it rains within two (2) hours after application.

APPLICATION TABLE		
CROP and DISEASE	DOSAGE	REMARKS
BRASSICA (broccoli, cabbage, brussels sprouts, cauliflower, kale) Alternaria diseases <i>(Alternaria spp.)</i> Powdery mildew <i>(Erysiphe polygoni)</i>	<p>Ground and Aerial Application: 800 – 1000 mℓ/ha</p> <p>SPRAY VOLUME: <u>Ground/Tractor application:</u> 250 – 1000 ℓ water/ha <u>Aerial application:</u> 30 – 40 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Apply Obstructo Prime 325 SC as a full cover preventative spray in sufficient water volumes to ensure adequate coverage. ▶ Obstructo Prime 325 SC to be used in a protectant spray programme applied in 7 – 10 day intervals, with registered fungicide products from other FRAC groups. ▶ Start spray programme before disease are observed when conditions are favourable for disease development. ▶ DO NOT apply more than one (1) application of Obstructo Prime 325 SC before alternating with an unrelated fungicide, from different FRAC groups. ▶ A maximum of four (4) Obstructo Prime 325 SC applications can be applied per season. ▶ An adjuvant can be applied at the registered rate and may lead to enhance efficacy.
BULB VEGETABLES (bulb onions, chives, garlic, leeks) Botrytis leaf blight <i>(Botrytis spp.)</i> Purple blotch <i>(Alternaria porri)</i>	<p>Ground and Aerial Application: 500 mℓ/ha</p> <p>SPRAY VOLUME: <u>Ground/Tractor application:</u> 250 – 1000 ℓ water/ha <u>Aerial application:</u> 30 – 40 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Apply Obstructo Prime 325 SC as a full cover preventative spray in sufficient water volumes to ensure adequate coverage. ▶ Obstructo Prime 325 SC to be used in a protectant spray programme applied in 7 – 10 day intervals, with registered fungicide products from other FRAC groups. ▶ Start spray programme before disease are observed when conditions are favourable for disease development. ▶ DO NOT apply more than one (1) application of Obstructo Prime 325 SC before alternating with an unrelated fungicide, from different FRAC groups. ▶ A maximum of four (4) Obstructo Prime 325 SC applications can be applied per season. ▶ An adjuvant can be applied at the registered rate and may lead to enhance efficacy.
CARROTS Alternaria blight <i>(Alternaria dauci)</i>	<p>Ground Application 500 mℓ/ha</p>	<ul style="list-style-type: none"> ▶ Apply Obstructo Prime 325 SC as a preventative treatment before disease occurs. ▶ DO NOT APPLY more than two (2) consecutive sprays 7 – 10 days apart, the first application when the first true leaves are visible, or at the onset of the first symptoms.
Powdery mildew <i>(Erysiphe spp.)</i>	<p>Ground and Aerial Application 880 – 1000 mℓ/ha</p> <p>SPRAY VOLUME: <u>Ground/Tractor application:</u> 200 – 750 ℓ water/ha <u>Aerial application:</u> 30 – 40 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ A maximum of two (2) Obstructo Prime 325 SC applications can be applied per season. ▶ When disease pressure is high, use the shortest interval at the highest rate. ▶ Alternate treatments with unrelated fungicides, from different FRAC groups. ▶ Obstructo Prime 325 SC can be used in a spray programme with registered fungicide products from other FRAC groups.
CUCURBITS (muskmelon, watermelon, pumpkin, squash, zucchini, cucumber, gherkin, patty pans including all cultivars and hybrids of these) Anthracnose <i>(Colletotrichum orbiculare)</i>	<p>Ground and Aerial Application 730 – 1000 mℓ/ha</p> <p>SPRAY VOLUME: <u>Ground/Tractor application:</u> Minimum 500 ℓ water/ha <u>Aerial application:</u> 30 – 40 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Starting at flower initiation, apply up to three (3) consecutive sprays, 7 – 10 days apart. ▶ Apply with an adequate water volume for complete coverage. ▶ DO NOT apply with a wetting agent. ▶ A maximum of three (3) Obstructo Prime 325 SC applications can be applied per season.
Powdery mildew <i>(Sphaerotheca fuliginea)</i> <i>(Erysiphe cichoracearum)</i>	<p>Ground Application 625 mℓ/ha</p>	

<p>DRY BEANS</p> <p>Anthracnose (<i>Colletotrichum lindemuthianum</i>)</p> <p>Rust (<i>Uromyces appendiculatus</i>)</p>	<p>Ground Application 500 mℓ/ha</p> <p>SPRAY VOLUME: <u>Ground/Tractor application:</u> 250 – 500 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Starting at flower initiation, apply two (2) consecutive sprays, 14 days apart. ▶ A maximum of two (2) Obstructo Prime 325 SC applications can be applied per season.
<p>GRAIN SORGHUM</p> <p>Rust (<i>Puccinia sorghi</i>)</p>	<p>Ground and Aerial Application 500 – 1000 mℓ/ha</p> <p>SPRAY VOLUME: <u>Ground/Tractor application:</u> 250 – 450 ℓ water/ha <u>High clearance tractor application:</u> 150 – 300 ℓ water/ha <u>Knapsack sprayer application:</u> 60 – 70 ℓ water/ha <u>Aerial application:</u> 30 – 40 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Apply Obstructo Prime 325 SC before 3 % of the total leaf have disease symptoms. ▶ Apply Obstructo Prime 325 SC as a preventative treatment for effective disease management. ▶ Apply Obstructo Prime 325 SC at 21 – 28 day intervals, using the shortest interval at the highest rate if disease pressure is high. ▶ When applied on “short season” hybrids, one spray after pollination will probably be sufficient to control the disease for the rest of the season and further sprays may not be necessary. ▶ However, if the initial application was applied at a very early stage, a third application may be required. ▶ A maximum of three (3) Obstructo Prime 325 SC applications can be applied per season.
<p>GROUNDNUTS</p> <p>Early leaf spot (<i>Cercospora arachidicola</i>)</p> <p>Web blotch (<i>Phoma arachidicola</i>)</p>	<p>Ground Application 500 mℓ/ha</p> <p>SPRAY VOLUME: <u>Ground/Tractor application:</u> 300 – 400 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ At the first sign of disease, apply two (2) consecutive sprays of Obstructo Prime 325 SC at 14 – 21-day intervals. ▶ If no disease is present, start the first application at flower initiation, 10 – 12 weeks after planting. ▶ A maximum of two (2) Obstructo Prime 325 SC applications can be applied per season.
<p>MAIZE AND SWEETCORN</p> <p>Grey leaf spot (<i>Cercospora zeina</i>)</p> <p>Northern corn leaf blight (<i>Exserohilum turcicum</i>)</p> <p>Rust (<i>Puccinia sorghi</i>)</p>	<p>Ground and Aerial Application 500 – 750 mℓ/ha OR 4.5 – 6.8 mℓ/100 m row</p> <p>SPRAY VOLUME: <u>Ground/Tractor application:</u> 250 – 450 ℓ water/ha OR 2 – 4 ℓ/100 m row <u>High clearance tractor application:</u> 150 – 300 ℓ water/ha OR 2 – 4 ℓ/100 m row <u>Knapsack sprayer application:</u> 60 – 70 ℓ water/ha <u>Aerial application:</u> 30 – 40 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Apply the first application at the 5 – 6 leaf stage OR before the infection level reach 3 % of the total leaf surface OR at the start of the first symptoms on the basal 3 – 5 leaves. ▶ For effective disease control, applications must be preventative, especially for northern corn leaf blight. ▶ Follow-up applications should be made at intervals of 21 – 28 days. Under high disease pressure use the shorter interval and higher rate. ▶ When used on ‘short season’ hybrids, one spray after pollination will probably be sufficient to control the disease for the rest of the season and further sprays may not be necessary. ▶ Where initial application was applied at a very early stage, a third application might be required. In such cases, the first two applications are made with Obstructo Prime 325 SC with an interval of 21 – 28 days and the last (third) application being made 21 – 28 days after the second application. ▶ A maximum of three (3) Obstructo Prime 325 SC applications can be applied per season.
<p>WARNING:</p> <p>MAIZE APPLICATIONS: The risk of Arrested Ear Syndrome (Blunt Ear Syndrome) increases dramatically when any applications (crop protection products, fertilisers, foliar feeds, adjuvants, etc.) are made between the V10 – VT (10th leaf collar – cob tassel emergence) growth stages of maize plants. Applications between the V10 – VT growth stages of the crop must be avoided as far as possible.</p>		
<p>NUTS (almonds, cashew, macadamia, pecans, pistachio)</p> <p>Blossom blight (<i>Monilinia</i> spp.)</p> <p>Macadamia: Husk rot (<i>Colletotrichum</i> spp.)</p> <p>Macadamia: Rats tail/Flower blight (<i>Cladosporium cladosporioides</i>)</p> <p>Pecan: Scab (<i>Cladosporium caryigenum</i>)</p>	<p>Ground and Aerial Application 500 – 1000 mℓ/ha</p> <p>SPRAY VOLUME: <u>Ground/Tractor application:</u> Use water volumes that will ensure complete coverage <u>Aerial application:</u> 30 – 40 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Obstructo Prime 325 SC should be applied in a protectant spray programme in 10 – 14 day intervals, with registered fungicides from other FRAC groups. ▶ DO NOT APPLY more than two (2) consecutive sprays of Obstructo Prime 325 SC in the spray programme. ▶ In orchards where Alternaria occurred previous seasons: In late spring, apply Obstructo Prime 325 SC in a high volume, and repeat the application 2 – 3 weeks later. ▶ For blossom blight: At early bloom, apply Obstructo Prime 325 SC and continue spray programme until the end of petal fall. ▶ DO NOT use Obstructo Prime 325 SC together with an adjuvant on cashew and macadamias. ▶ A maximum of four (4) Obstructo Prime 325 SC applications can be applied per season.

<p>PEPPERS/CAPSICUM (bell/sweet/chilli pepper, paprika, pimento, piquant)</p> <p>Powdery mildew (<i>Leveillula taurica</i>)</p>	<p>Ground Application 250 mℓ/100 ℓ water (Minimum 1000 mℓ/ha)</p>	<ul style="list-style-type: none"> ▶ Starting at flower initiation, apply two (2) consecutive sprays, 7 days apart. ▶ Apply with an adequate water volume for complete coverage. ▶ The addition of an adjuvant as registered, may enhance efficacy. ▶ A maximum of three (3) Obstructo Prime 325 SC applications can be applied per season. ▶ Obstructo Prime 325 SC should be applied in a preventative spray programme with registered fungicides from other FRAC groups.
<p>POMEGRANATES</p> <p>Alternaria fruit rot (<i>Alternaria alternata</i>)</p> <p>Brown fruit rot (<i>Botrytis cinerea</i>)</p>	<p>100 mℓ/100 ℓ water</p> <p>SPRAY VOLUME: See below for tree row volume calculations (TRV)</p>	<ul style="list-style-type: none"> ▶ Apply Obstructo Prime 325 SC as a preventative treatment during flowering stage. ▶ A maximum of two (2) applications, 7 – 10 days apart can be applied per season. ▶ Include Obstructo Prime 325 SC in a spray programme with registered fungicides from other FRAC groups, when more than two applications are necessary to control the disease. ▶ Apply as a high volume full cover spray. ▶ DO NOT apply Obstructo Prime 325 SC after first set of fruit is 20 mm in diameter. ▶ Check relevant MRL when applying on fruit designated for export.
<p>Water volume (ℓ) per hectare required for full cover spray using tree row volume (TRV) calculation:</p> <ul style="list-style-type: none"> • TRV (Full leaf) ℓ water/ha = (Tree Height X Tree Diameter X 937)/Row Width <p>Use the water volume per hectare to calculate the required amount of Obstructo Prime 325 SC per hectare, depending on the various growth stages.</p> <ul style="list-style-type: none"> • TRV (Up to +/- 30 % blossom) ℓ water/ha = [(Tree Height X Tree Diameter X 937)/Row Width] X 60 % • TRV (Full blossom to +/- middle November) ℓ water/ha = [(Tree Height X Tree Diameter X 937)/Row Width] X 80 % <p>Low Volume Application: When a low volume spray is used, use the same amount of Obstructo Prime 325 SC per hectare as calculated for the full cover spray.</p>		
<p>POTATOES</p> <p>Early blight (<i>Alternaria solani</i>)</p>	<p>Ground and Aerial Application 375 mℓ/ha</p> <p>SPRAY VOLUME: <u>Ground/Tractor application:</u> 250 – 750 ℓ water/ha <u>Aerial application:</u> 30 – 40 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Under favourable conditions for disease development, Obstructo Prime 325 SC should be applied in blocks of two (2) consecutive sprays, 7 – 10 days apart. ▶ For early blight: Obstructo Prime 325 SC can be repeated at 14-day intervals, alternating every 7 days with registered fungicides from other FRAC groups. ▶ For late blight (<i>Phytophthora infestans</i>): Obstructo Prime 325 SC alternated with chlorothalonil 500 SC or chlorothalonil 720 SC, at the registered application rates, in a 7-day cycle will provide preventative control. ▶ Where tractor application is not possible, aerial application can be considered, although reduced efficacy can be expected. ▶ A maximum of six (6) Obstructo Prime 325 SC applications can be applied per season.
<p>TOMATOES</p> <p>Early blight (<i>Alternaria solani</i>)</p>	<p>Ground Application 100 mℓ/100 ℓ water</p> <p>SPRAY VOLUME: <u>Ground/Tractor application:</u> 500 – 1400 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Under favourable conditions for disease development, Obstructo Prime 325 SC should be applied in blocks of two (2) consecutive sprays, 7 – 10 days apart. ▶ For early blight: Obstructo Prime 325 SC can be repeated at 14-day intervals, alternating every 7 days with registered fungicides from other FRAC groups. ▶ For late blight (<i>Phytophthora infestans</i>): The application of Obstructo Prime 325 SC alternated with chlorothalonil 500 SC or chlorothalonil 720 SC, at the registered application rates, in a 7-day cycle will provide preventative control. ▶ A maximum of six (6) Obstructo Prime 325 SC applications can be applied per season.

Consult the individual product labels for **USE RESTRICTIONS, WARNINGS (including RESISTANCE WARNINGS), PRECAUTIONS** and **DIRECTIONS FOR USE** if applied in a tank mixture with **Obstructo Prime 325 SC**.

OBSTRUCTO PRIME 325 SC

Wet Nr. 36 van 1947
SA Reg. Nr. L11505 / NAM Reg. No. N-AR 2336

'n Suspensie konsentraat, sistemiese swamdoder met kontak en translaminêre aksie vir die voorkomende beheer van siektes op gewasse soos aangedui.

AKTIEWE BESTANDELE:

Asoksistrobien 200 g/ℓ
Difenokonasool 125 g/ℓ

GEREGISTREER DEUR:

ICA International Chemicals (Pty) Ltd. Reg. Nr. 2001/013319/07
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WAARSKUWINGS

Skadelik indien ingeasem
Veroorsaak ernstige oogirritasie
Mag allergiese velreaksie veroorsaak
Baie giftig vir waterlewendende organismes met langdurige gevolge

ONTHOUDINGSPERIODES (Minimum aantal dae tussen laaste toediening en oes):

▶ <i>Aartappels</i>	14 Dae
▶ <i>Bolgewasse (boluie, grasuie, knoffel en preie)</i>	7 Dae
▶ <i>Droëbone</i>	45 Dae
▶ <i>Geelwortels</i>	7 Dae
▶ <i>Graansorghum</i>	14 Dae
▶ <i>Granate</i>	100 Dae
▶ <i>Grondbone</i>	28 Dae
▶ <i>Koolgewasse (brokkoli, brusselse spruite, blomkool, kool en kale)</i>	3 Dae
▶ <i>Mielies/Suikermielies</i>	* Sien nota
▶ <i>Neute (amandel)</i>	28 Dae
▶ <i>Neute (kasjoes, makadamias en pekanneute)</i>	45 Dae
▶ <i>Neute (pistachios)</i>	14 Dae
▶ <i>Pampoengewasse (spanspek, waatlemoen, pampoen, komkommer, agurkie, zucchini, skorsie, uitsluitend patty pans)</i>	3 Dae
▶ <i>Pampoengewasse (patty pans)</i>	1 Dag
▶ <i>Rissies (groen/soet/brand rissies, paprika, pimento en pikante rissies)</i>	7 Dae
▶ <i>Tamaties</i>	7 Dae

***Nota (Mielies/Suikermielies):** Volg 'n onthoudingsperiode van 28 dae indien die laer dosis toegedien is en 'n onthoudingsperiode van 3 maande indien die hoër dosis toegedien is. **MOET NIE** weiding toelaat indien die hoër dosies toegedien is nie.

Nakoming van hierdie onthoudingsperiodes en toedieningsmetodes sal verseker dat die plaaslike maksimum residu limiete (MRL) nie oorskry word nie, maar mag dalk nie voldoen aan die invoervereistes van ander lande nie. Indien die gewas wat behandel word bestem is vir uitvoer, raadpleeg die betrokke in- of uitvoerder rakende die gebruik van hierdie produk, die MRL en aanbevole onthoudingsperiodes. Alhoewel **Obstructo Prime 325 SC** as gewasveilig beskou word op die meeste belangrike kultivars, beteken dit nie dat 'n meer sensitiewe kultivar in die toekoms op die mark kan kom nie. **Obstructo Prime 325 SC** moet eers op nuwe kultivars getoets word voordat dit oor groot areas aangewend word.

HERBETREDINGSINTERVAL: Moet nie behandelde gebied binne 24 uur betree voordat die spuitneerslag neergedaal het/droog is nie, tensy beskermende 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, aangesien die werking en effek daarvan beïnvloed kan word deur faktore soos abnormale grond-, klimaats- en bergingstoestande, kwaliteit van verdunningswater, verenigbaarheid met ander produkte wat nie op die etiket aangedui is nie en die voorkoms van weerstand teen die betrokke middel, sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of vir nadelige effekte op mens of dier of vir 'n gebrek aan doeltreffendheid, as gevolg van die versuim van die gebruiker om die 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 geval van enige onsekerheid.

VOORSORGMATREËLS

Indien mediese advies nodig word, hou die produkhouer of -etiket byderhand.

Hou buite bereik van kinders.

Lees sorgvuldig en volg alle instruksies.

Vermy inaseming van stuifsel en spuitstof.

Was hande en gesig deeglik na hantering. Moet nie aan oë raak nie.

Gebruik slegs buitenshuis of in 'n goed geventileerde area.

Besoedelde werksklere moet nie buite die werksplek toegelaat word nie.

Vermy vrystelling in die omgewing.

Dra beskermende handskoene, beskermende klere, oog- en gesigbeskerming.

INDIEN OP VEL: Was met baie seep en water.

Indien velirritasie of uitslag ontstaan: Kry mediese hulp.

INDIEN INGEASEM: Neem slagoffer na vars lug en hou gemaklik vir asemhaling. Kry mediese hulp.
INDIEN IN OË: Spoel versigtig met water vir etlike minute. Verwyder kontaklense indien aanwesig en maklik om te verwyder. Hou aan met spoel.
Indien oogirritasie voortduur: Kry mediese hulp.
Vir spesifieke behandeling, verwys na die noodhulpbehandeling op hierdie etiket.
Trek alle besoedelde klere uit en was dit voor hergebruik.
Maak storsel bymekaar.
Berg agter slot en grendel.
Raak ontslae van inhoud en houers volgens nasionale regulasies.

SPOEL DIE LEË HOUER DRIE MAAL SOOS VOLG: Keer die leë houër om oor die spuit- of mengtenk en dreineer vir minstens 30 sekondes totdat die vloeï tot 'n gedrup verminder het. Spoel daarna die leë houër drie keer uit met vars water, teen 'n kwart van die houër se volume, en giet die spoelwater in die spuit- of mengtenk. Kap gate in die drie keer gespoelde houër, waarna dit aan 'n goedgekeurde versamelaar of verwerker oorhandig moet word (www.croplife.co.za). Moet nie die houër begrawe, verbrand of aan enige ander partye skenk wat dit as houër vir voedsel of drinkgoed mag gebruik nie.

RELEVANTE STOWWE:

Asoksistrobien (Cas no: 131860-33-8) Akute Giftigheid Inaseming Kategorie 4, H332; Waterlewend Akut Kategorie 1, H400; Waterlewend Kronies Kategorie 1, H410 (20 % m/v).

Difenokonasool (Cas no: 119446-68-3) Akute Giftigheid Mondelings Kategorie 4, H302; Oogirritasie Kategorie 2, H319; Waterlewend Akut Kategorie 1, H400; Waterlewend Kronies Kategorie 1, H410 (12.5 % m/v).

1,2-bensisotiasolien-3-oon (Cas no: 2634-33-5) Vel Allergie Kategorie 1, H317 (< 1 % m/v).

NOODHULPBEHANDELING

Ingeval van 'n ongeluk of as u onwel voel, verkry mediese hulp dadelik en wys ETIKET indien moontlik.

- INGEASEM:**
- Neem die slagoffer weg van die onmiddellike bron van blootstelling. Verskuif die slagoffer na vars lug as dit veilig gedoen kan word en hou gemaklik. Indien die slagoffer ophou asemhaal, pas kunsmatige asemhaling toe.
 - MOET NIE mond-tot-mond-asemhaling toepas indien die slagoffer die stof opgeneem of ingeasem het nie; was gesig en mond voordat kunsmatige asemhaling toegepas word. Gebruik 'n sakmasker toegegerus met 'n eenrigtingklep of ander geskikte mediese asemhalingtoestel.
- VEL:**
- Dien suurstof toe as die slagoffer se asemhaling moeilik of onreëlmatig is. Kry mediese hulp.
 - Verwyder en isoleer besmette klere, skoene en leergoedere dadelik en gaan stort.
 - Spoel aangetaste areas met nieskurende seep of sagwerkende wasmiddel en groot hoeveelhede lopende water. Was besmette klere voor hergebruik.
- OË:**
- Kry mediese hulp indien irritasie ontwikkel en voortduur.
 - Spoel oë versigtig met skoon lopende water vir ten minste 15 minute terwyl die ooglede vanmekaar gehou word. Verwyder kontaklense na 5 minute indien aanwesig en maklik om te doen. Hou aan met spoel terwyl ooglede vanmekaar gehou word. Kry mediese hulp indien irritasie voortduur.
- OPNEMING:**
- Indien ingesluk MOET NIE vomering aanmoedig nie, tensy deur 'n gifbeheersentrum of dokter aangesê word om dit te doen.
 - Laat persoon slukkies van 'n glas water neem indien in staat om te sluk. Moet nooit iets per mond aan 'n bewustelose persoon toedien nie. Kry mediese hulp.
- NOTA AAN GENEESHEER:**
- Daar is nie 'n spesifieke teenmiddel nie. Alle behandeling moet gebaseer word op waargenome tekens en simptome van nood by die pasiënt.
- MOONTLIKE GESONDHEIDSGEVOLGE:**
- Geen beduidende nadelige effekte is aangemeld nie. Geringe oogirritasie kan voorkom. Gevolge van blootstelling (inaseming, opneming of velkontak) aan stof kan vertraag wees.

WEERSTANDSWAARSKUWING

Vir weerstandsbestuur: Obstructo Prime 325 SC is 'n groeppode (11) en (3) swamdoder. Enige populasie van 'n spesifieke swam mag individueel insluit wat 'n natuurlike weerstand teen **Obstructo Prime 325 SC** of enige ander groeppode (11) en (3) swamdoders het. Indien hierdie swamdoders herhaaldelik aangewend word, kan die weerstandbiedende individueel uiteindelik die swampopulasie oorheers. Hierdie weerstandbiedende swamme sal waarskynlik nie deur **Obstructo Prime 325 SC** of enige ander groeppode (11) en (3) swamdoders beheer word nie.

Om weerstand teen swamdoders te vertraag:

- ▶ vermy die eksklusiewe herhaaldelike gebruik van swamdoders met dieselfde groeppode. Wissel af met, of gebruik tenkingsels van produkte in verskillende swamdoder groeppodes,
- ▶ raadpleeg toepaslike individuele produketikette wanneer daar afgewissel word, of tenkingsels gemaak word, met produkte in ander swamdoder groeppodes,
- ▶ integreer ander beheermaatreëls (chemies, verbouing, biologies) in swamdoderprogramme.
- ▶ waar weerstand bekend is of vermoed word, moet **Obstructo Prime 325 SC** nie alleen toegedien word nie, maar in kombinasie met swamdoders van 'n ander swamdoder groeppode. Hierdie bestuur strategie om weerstand te voorkom, moet egter nie swamdoder produkte insluit waar weerstand in die verlede aangemeld is nie, of dieselfde werkswyse het nie,
- ▶ vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk of jou plaaslike verskaffer,
- ▶ besoek die FRAC-webwerf by <https://www.frac.info/> vir meer inligting,
- ▶ om die effektiwiteit van **Obstructo Prime 325 SC** te handhaaf is dit belangrik om die ontwikkeling van siekte weerstand teen (11) en (3) swamdoders te voorkom.

WERKINGSWYSE

Asokistrobien behoort aan die strobilurien klas swamdoders (FRAC groep 11). Strobilurien, ook bekend as Qol swamdoders, inhibeer mitochondriale respirasie wat lei tot 'n energietekort in die swamselle deur energieproduksie te staak wat swamdood veroorsaak (inhibeer spoorontkieming, miseliumgroei en sporulering).

Difenokonasool (triasool) is 'n sistemiese demetieleringsinhiberende (DMI) swamdoder met beskermende, genesende en uitwissende aksie. Difenokonasool werk deur die selwande van swamme te beïnvloed deur spoorontkieming en swamgroei te onderdruk.

GEBRUIKSBEPERKINGS

- Dit is belangrik dat **Obstructo Prime 325 SC** voorkomend, voordat simptome ontwikkel, aangewend word, soos in die toedieningstabel aanbeveel word.
- Gebruik slegs die aanbevole dosisse wat op die etiket aangedui word, MOET NIE die dosisse verlaag nie.
- **Obstructo Prime 325 SC** moet as 'n voldekbepuiting aangewend word.
- Moet nooit **Obstructo Prime 325 SC** as 'n regstellende of genesende behandeling, wanneer siekte reeds teenwoordig is, of na 'n mislukte behandeling van enige produk, aanwend nie.
- Wanneer 'n tenkmengsel gebruik word, of met ander swamdoders gewissel word, gebruik slegs geregistreerde mengbare produkte wat individueel ook effektiewe siektebeheer kan toepas.
- Herhaal toediening indien dit binne twee ure na aanwending reën.

GEBRUIKSAANWYSINGS – gebruik slegs soos aangedui

VERENIGBAARHEID:

Obstructo Prime 325 SC is verenigbaar met die meeste swamdoders, insekdoders en mytdoders, maar vermy produkte wat swaar metale bevat. Die verenigbaarheid van **Obstructo Prime 325 SC** met ander produkte hang af van die formulering van die verskeie produkte sowel as die kwaliteit van die spuitwater wat gebruik gaan word. Aangesien die formulering van ander produkte van tyd tot tyd sonder ons wete kan verander, en die kwaliteit van die spuitwater tussen produsente ook kan verskil, word dit dus aanbeveel dat 'n kleinskaalse fisiese verenigbaarheidstoets voor die opmaak van 'n tenkmengsel, uitgevoer moet word. Raadpleeg altyd die etikette van die produkte wat saam met **Obstructo Prime 325 SC** in 'n tenkmengsel gevoeg word.

MENGINSTRUKSIES:

Maak mengtenk halfvol met skoon water. Skud die **Obstructo Prime 325 SC** houër deeglik voor gebruik en meng die aanbevole hoeveelheid vooraf in ten minste 10 ℓ water. Meng enige ander produk vooraf afsonderlik op dieselfde wyse. Terwyl mengtenk geroer word, voeg die vooraf gemengde produkte in die volgende volgorde by: buffers/versuurder, benatbare poeiers, wateroplosbare korrels, suspensie konsentrate, emulsifiseerde konsentrate en oplosbare konsentrate laaste. Voeg produkte wat in wateroplosbare materiaal verpak is eerste by en **Obstructo Prime 325 SC** daarna. Vul mengtenk met skoon water tot by verlangde vlak terwyl dit voordurend gemeng word. Roer mengsel deeglik voor en deurgaans tydens toediening. MOET NIE toelaat dat die mengsel uitsak nie. **DIE TENKMENGSSEL MOET ONMIDDELLIK UITGESPUIT WORD EN NIE TOEGELAAT WORD OM OORNAG IN DIE SPUITENK TE STAAN NIE.** Spuittoerusting moet deeglik uitgespuit/skoongemaak word na afloop van toediening.

MAAK SPUITTOERUSTING ONMIDDELLIK NA GEBRUIK SKOON: Spesiale aandag en versorging moet tydens die skoonmaak van alle toerusting wat in die meng- en toedieningsproses van **Obstructo Prime 325 SC** gebruik is, toegepas word om skade aan ander gewasse te voorkom.

GRONDTOEDIENING:

- **Obstructo Prime 325 SC** kan met 'n konvensionele hoë volume spuitapparaat toegedien word. Die spuitpunte moet met holkeëlsputkoppe toegerus word wat medium tot fyn druppels verseker.
- Maak seker dat die spuitapparaat korrek gekalibreer is, en gaan gereeld na sodat die korrekte dosis en bedekking toegedien word.
- Die verspreiding van die spuitmengsel oor die teikengebied moet uniform wees. Moet nie dat die toedienings oorvleuel nie aangesien dit gewasse kan beskadig.
- Die verspreiding van die spuitmengsel moet uniform wees en deeglike bedekking van die hele plant (insluitende die stiele en blare) is belangrik, gebruik genoegsame water en toepaslike spuitapparaat. Moet nie deur ultra-lae volume (ULV) spuitsisteme toedien nie.
- Herhaal die toediening indien dit binne twee (2) ure na bespuiting reën.
- Vermy drywing na ander gewasse, weiding, riviere, damme en ander nie-teiken areas.

LUGTOEDIENING:

VERMY SPUITSTOF WEGDRYING TEN ALLE TYE

Lugtoediening van **Obstructo Prime 325 SC** mag slegs deur 'n geregistreerde lugbespuitingsoperateur en met akkurate gekalibreerde vliegtuie, soos deur SANS 10118 (Aerial Application of Agricultural Remedies) instruksies vereis, uitgevoer word. Dit is belangrik om te verseker dat die spuitstof eweredig oor die teiken area versprei word en dat die verlies van spuitstof gedurende toediening tot 'n minimum beperk word. Deeglike bedekking is van kardinale belang vir effektiewe resultate. Gebruik slegs op gewasse soos in die etiket aangedui word. Dit is van belang dat die volgende kriteria gevolg word:

TOEDIENINGSRIGLYNE:

- **Volume:** 'n Minimum volume spuitmengsel van 30 – 40 ℓ water/ha word aanbeveel behalwe indien anders in die toedieningstabel aanbeveel word. Aangesien **Obstructo Prime 325 SC** nie teen 'n verlaagde volume toediening geëvalueer is nie, kan die registrasiehouer nie effektiwiteit waarborg of verantwoordelik vir enige nadelige gevolge gehou word, indien hierdie produk teen 'n verlaagde volume aangewend word as wat aanbeveel is nie.
- **Druppelbedekking:** 'n Druppelbedekking van 25 – 35 druppels per vierkante sentimeter (cm²) moet op die teikenarea herwin word.
- **Druppelgrootte:** 'n Druppelspektrum met 'n VMD van 280 – 300 mikron (µm) word aanbeveel. Beperk die produksie van druppels kleiner as < 150 mikron (hoë drywing en verdampingspotensiaal) tot 'n minimum.
- **Vlieghoogte:** Handhaaf die hoogte van die spuitbalk bo die teiken op 3 – 4 m. Moet nie spuit wanneer vliegtuig duik, uitklim of draai nie.
- Stel alle inwoners in die onmiddellike omgewing van die gebied wat bespuit gaan word in kennis en reik die nodige waarskuwings uit.

APPARAAT:

- Gebruik geskikte atomiseringsapparaat (hidrouliese spuitkoppe of roterende atomiseerders) wat die vereiste druppelgrootte en bedekking van die teikenarea sal produseer en die minste verlies van produk sal verseker, hetsy deur endodrywing (binne teikenveld) of eksodrywing (buite teikenveld).
- Die operateur moet die spuitstelsel so oprig dat dit 'n druppelspektrum met die kleinste moontlike relatiewe span produseer.
- Alle spuitkoppe of atomiseerders moet in die binneste 60 – 75 % van die vlerkspan geplaas word om te verhoed dat druppels binne-in die vlerkpuntvorteks beweeg.

METEORLOGIESE TOESTANDE:

- Die verskil in temperatuur tussen die nat- en droë-boltermometer van 'n swaaihygrometer, moet nie 8 °C oorskry nie.
- Stop bespuiting indien die windspoed 15 km/h oorskry of verlaag tot laer as 5 km/h.
- Stop bespuiting tydens turbulente, onstabiele en droë toestande gedurende die hitte van die dag.
- Bespuiting onder temperatuur inversie toestande (deur bo of binne die inversie laag te spuit) en/of hoë lugvog toestande (relatiewe humiditeit 80 % en meer) mag tot die volgende probleme aanleiding gee:
 - verlaagde doeltreffendheid aangesien die druppels as 'n wolk in die lug bly hang en moontlik verdamp (onvoldoende bedekking op teiken),
 - skade aan nie-teiken gewasse of sensitiewe areas as gevolg van wegdrywing van die spuitwolk na nie-teiken areas.
- Onder die volgende klimaatstoestande kan drywing tot en met 3 – 5 km vanaf die naaste bespuitingsroete van die vliegtuig voorkom:
 - Bewolkte weer met relatiewe humiditeit van 80 % en lae lugbeweging van minder as 5 km/h.
 - Wanneer sulke toestande voorkom moet lugtoediening **NIE** op sensitiewe gewasse uitgevoer word **NIE**.
- Verseker dat teiken areas akkuraat gemerk is en dat die lugbespuitingsoperateur presies weet watter areas gespuit moet word. Voorsien die vlieënier met duidelike aanwysings van watter areas behandel moet word, verkieslik d.m.v. 'n kaart of GPS koördinate. Dui aanliggende omgewingssensitiewe areas of sensitiewe aangrensende gewasse, byekorwe of waterbronne wat deur die swamdoder geaffekteer kan word aan.
- Verkry 'n versekering van die lugbespuitingsoperateur dat daar aan al die bogenoemde vereistes voldoen sal word en dat data van belang in 'n logboek saamgevat sal word vir toekomstige verwysing.
- Herhaal toediening indien dit binne twee (2) ure na aanwending reën.

TOEDIENINGSTABEL		
GEWAS en SIEKTE	DOSIS	OPMERKINGS
AARTAPPELS Vroeë-roes <i>(Alternaria solani)</i>	Grond- en Lugtoediening 375 ml/ha SPUITVOLUMES <u>Grond-/Trekertoediening:</u> 250 – 750 ℓ water/ha <u>Lugtoediening:</u> 30 – 40 ℓ water/ha	<ul style="list-style-type: none"> ▶ Onder gunstige toestande vir siekteontwikkeling, moet Obstructo Prime 325 SC in blokke van twee (2) opeenvolgende bespuitings 7 – 10 dae uitmekaar toegedien word. ▶ Vir vroeë roes: Obstructo Prime 325 SC kan met 14 dae intervale herhaal word, mits dit elke 7 dae met 'n geregistreerde swamdoder van 'n ander FRAC groeppkode afgewissel word. ▶ Vir laatroes (Phytophthora infestans): die toediening van Obstructo Prime 325 SC afgewissel met chlorothalonil 500 SC of chlorothalonil 720 SC, teen die geregistreerde dosis, in 'n 7-dag siklus sal ook voorkomende beheer verskaf. ▶ Waar grond-/trekertoedienings nie moontlik is nie, kan lugtoediening oorweeg word, alhoewel verlaagde effektiwiteit verwag kan word. ▶ 'n Maksimum van ses (6) Obstructo Prime 325 SC toedienings kan per seisoen toegedien word.
BOLGEWASSE (boluie, grasuie, knoffel en preie) Botrytis blaarskroei <i>(Botrytis spp.)</i> Persvlek <i>(Alternaria porri)</i>	Grond- en Lugtoediening 500 ml/ha SPUITVOLUMES <u>Grond-/Trekertoediening:</u> 250 – 1000 ℓ water/ha <u>Lugtoediening:</u> 30 – 40 ℓ water/ha	<ul style="list-style-type: none"> ▶ Dien Obstructo Prime 325 SC as 'n oorkomende voldekbespuiting toe, in voldoende watervolumes om deeglike bedekking te verseker. ▶ Obstructo Prime 325 SC moet as deel van 'n beskermende spuitprogram gebruik word in 7 – 10 dag intervale, saam met geregistreerde swamdoders vanuit ander FRAC groepe. ▶ Begin die spuitprogram voor die aanvang van siekte, wanneer toestande gunstig vir siekteontwikkeling is. ▶ MOET NIE meer as een (1) toediening van Obstructo Prime 325 SC toedien voordat daar met 'n onverwante swamdoder, vanuit 'n ander FRAC groep, afgewissel word nie. ▶ 'n Maksimum van vier (4) Obstructo Prime 325 SC toedienings kan per seisoen toegedien word. ▶ 'n Adjuvant kan teen die geregistreerde dosis bygevoeg word om effektiwiteit potensieël te bevorder.

<p>DROËBONE</p> <p>Antraknose (<i>Colletotrichum lindemuthianum</i>)</p> <p>Roes (<i>Uromyces appendiculatus</i>)</p>	<p>Grondtoediening 500 mℓ/ha</p> <p>SPUITVOLUME <u>Grond-/Trekertoediening:</u> 250 – 500 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Begin by blominisiasie en dien twee (2) opeenvolgende toedienings, 14 dae uitmekaar, toe. ▶ 'n Maksimum van twee (2) Obstructo Prime 325 SC toedienings kan per seisoen toegedien word.
<p>GEELWORTELS</p> <p>Alternaria skroei (<i>Alternaria dauci</i>)</p>	<p>Grondtoediening 500 mℓ/ha</p>	<ul style="list-style-type: none"> ▶ Dien Obstructo Prime 325 SC as 'n voorkomende behandeling voor die aanvang van die siekte toe. ▶ MOET NIE meer as twee (2) opeenvolgende toedienings, 7 – 10 dae uitmekaar, toedien nie. Dien die eerste toediening sodra die eerste ware blare sigbaar is, of sodra die eerste simptome sigbaar is.
<p>Poeieragtige meeldou (<i>Erysiphe</i> spp.)</p>	<p>Grond- en Lugtoediening 880 – 1000 mℓ/ha</p> <p>SPUITVOLUMES <u>Grond-/Trekertoediening:</u> 250 – 750 ℓ water/ha <u>Lugtoediening:</u> 30 – 40 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ 'n Maksimum van twee (2) Obstructo Prime 325 SC toedienings kan per seisoen toegedien word. ▶ Wanneer siektdruk hoog is, gebruik die korter interval teen die hoogste dosis. ▶ Wissel behandelings met onverwante swamdoders, vanuit verskillende FRAC groepe, af. ▶ Obstructo Prime 325 SC kan binne 'n spuitprogram saam met geregistreerde swamdoders vanuit ander FRAC groepe gebruik word.
<p>GRAANSORGHUM</p> <p>Roes (<i>Puccinia sorghi</i>)</p>	<p>Grond- en Lugtoediening 500 – 1000 mℓ/ha</p> <p>SPUITVOLUMES <u>Grond-/Trekertoediening:</u> 250 – 450 ℓ water/ha <u>Hoë-balk trekkertoediening:</u> 150 – 300 ℓ water/ha <u>Rugsakspuittoediening:</u> 60 – 70 ℓ water/ha <u>Lugtoediening:</u> 30 – 40 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Begin Obstructo Prime 325 SC toediening voordat 3 % van die totale blaaroppervlakte simptome wysig. ▶ Dien Obstructo Prime 325 SC as 'n voorkomende behandeling vir effektiewe siektebestuur toe. ▶ Dien Obstructo Prime 325 SC teen 21 – 28 dag intervalle toe, gebruik die korter interval teen die hoogste dosis indien siektdruk hoog is. ▶ Wanneer Obstructo Prime 325 SC op “kort-seisoen” baster varieteite toegedien word, sal een (1) spuit na bestuiwing, waarskynlik voldoende wees om die siekte vir die res van die seisoen te beheer, en verdere toedienings mag dus onnodig wees. ▶ Indien die eerste toediening egter reeds teen 'n baie vroeë stadium toegedien is, kan 'n derde toediening dalk nodig wees. ▶ 'n Maksimum van drie (3) Obstructo Prime 325 SC toedienings kan per seisoen toegedien word.
<p>GRANATE</p> <p>Alternaria vrugvrot (<i>Alternaria alternata</i>)</p> <p>Botrytis vrugvrot (<i>Botrytis cinerea</i>)</p>	<p>100 mℓ/100 ℓ water</p> <p>SPUITVOLUME Sien onder vir boomry volume berekening (BRV)</p>	<ul style="list-style-type: none"> ▶ Dien Obstructo Prime 325 SC as 'n voorkomende behandeling gedurende die blomperiode toe. ▶ 'n Maksimum van twee (2) toedienings, 7 – 10 dae uitmekaar, kan per seisoen toegedien word. ▶ Gebruik Obstructo Prime 325 SC in 'n spuitprogram saam met geregistreerde swamdoders vanuit ander FRAC groepe, wanneer meer as twee toedienings benodig word om siekte te beheer. ▶ Dien as 'n hoë volume voldekbepuiting toe. ▶ MOET NIE Obstructo Prime 325 SC toedien nadat die eerste vrugte 20 mm in diameter bereik het nie. ▶ Bevestig die relevante MRL wanneer op vrugte toegedien word wat vir uitvoere bestem is.
<p>Water volume (ℓ) per hektaar benodig vir voldekbepuiting volgens boomry volume (BRV) berekening:</p> <ul style="list-style-type: none"> • BRV (Volle Blad) ℓ water/ha = (Boomhoogte X Boomdeursnit X 937)/Rywydte <p>Gebruik die water volume per hektaar om die hoeveelheid Obstructo Prime 325 SC per hektaar benodig te bepaal, afhangende van die verskeie groeistadiums.</p> <ul style="list-style-type: none"> • BRV (Tot +/- 30 % blom) ℓ water/ha = [(Boomhoogte X Boomdeursnit X 937)/Rywydte] X 60 % 		

- **BRV** (Volblom tot +/- middel November)
 ℓ water/ha = [(Boomhoogte X Boomdeursnit X 937)/Rywydte] X 80 %

Lae Volume Aanwending:

Wanneer 'n lae volume aanwending gebruik word, gebruik dieselfde hoeveelheid **Obstructo Prime 325 SC** per hektaar soos bereken vir die voldekbepuiting.

<p>GRONDBONE</p> <p>Vroeë blaarvlek (<i>Cercospora arachidicola</i>)</p> <p>Spatselvlek (<i>Phoma arachidicola</i>)</p>	<p>Grondtoediening 500 mℓ/ha</p> <p>SPUITVOLUMES <u>Grond-/Trekertoediening:</u> 300 – 400 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Dien twee (2) opeenvolgende Obstructo Prime 325 SC bespuitings met 14 – 21 dae intervalle toe sodra die eerste simptome waargeneem word. ▶ Indien geen siekte teenwoordig is nie, begin die eerste toediening by blominsiasie, 10 – 12 weke na plant. ▶ 'n Maksimum van twee (2) Obstructo Prime 325 SC toedienings kan per seisoen toegedien word.
<p>KOOLGEWASSE (brokkoli, brusselse spruite, blomkool, kool, kale)</p> <p>Alternaria siektes (<i>Alternaria</i> spp.)</p> <p>Poeieragtige meeldou (<i>Erysiphe polygoni</i>)</p>	<p>Grond- en Lugtoediening 800 – 1000 mℓ/ha</p> <p>SPUITVOLUMES <u>Grond-/Trekertoediening:</u> 250 – 1000 ℓ water/ha <u>Lugtoediening:</u> 30 – 40 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Dien Obstructo Prime 325 SC as 'n voorkomende voldekbepuiting in voldoende watervolumes toe, om deeglike bedekking te verseker. ▶ Obstructo Prime 325 SC moet as deel van 'n beskermende spuitprogram gebruik word in 7 – 10 dag intervalle, saam met geregistreerde swamdoders vanuit ander FRAC groepe. ▶ Begin die spuitprogram voor die aanvang van die siekte, wanneer toestande gunstig vir siekteontwikkeling is. ▶ MOET NIE meer as een (1) toediening van Obstructo Prime 325 SC toedien voordat daar met 'n onverwante swamdoder, vanuit 'n ander FRAC groep, afgewissel word nie. ▶ 'n Maksimum van vier (4) Obstructo Prime 325 SC toedienings kan per seisoen toegedien word. ▶ 'n Adjuvant kan teen die geregistreerde dosis bygevoeg word, en dit mag lei tot verhoogde effektiwiteit.
<p>MIELIES EN SUIKERMIELIES</p> <p>Grysblaarvlek (<i>Cercospora zeina</i>)</p> <p>Noordelike blaarskroei (<i>Exserohilum turcicum</i>)</p> <p>Roes (<i>Puccinia sorghi</i>)</p>	<p>Grond- en Lugtoediening 500 – 750 mℓ/ha OF 4.5 – 6.8 mℓ/100 m ry</p> <p>SPUITVOLUMES <u>Grond-/Trekertoediening:</u> 250 – 450 ℓ water/ha OF 2 – 4 ℓ/100 m ry <u>Hoë-balk trekkertoediening:</u> 150 – 300 ℓ water/ha OF 2 – 4 ℓ/100 m ry <u>Rugsakspuittoediening:</u> 60 – 70 ℓ water/ha <u>Lugtoediening:</u> 30 – 40 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Begin Obstructo Prime 325 SC toediening teen die 5 – 6 blaastadiums OF voordat 3 % van die totale blaaroppervlaktes simptome wysig OF teen die begin van die eerste simptome op die 3 – 5 basale blare. ▶ Vir effektiewe siektebestuur, dien Obstructo Prime 325 SC as 'n voorkomende behandeling toe, veral in die geval van Noordelike blaarskroei beheer. ▶ Dien opvolg Obstructo Prime 325 SC aanwendings na 'n 21 – 28 dag interval toe, gebruik die korter interval teen die hoogste dosis indien siektedruk hoog is. ▶ Wanneer op kort-seisoen baster varieteite toegedien word, sal een (1) spuit na bestuiwing, waarskynlik voldoende wees om die siekte vir die res van die seisoen te beheer, en verdere toedienings mag dus onnodig wees. ▶ Indien die eerste toediening teen 'n baie vroeë stadium toegedien is, kan 'n derde toediening nodig wees. In so geval word die eerste twee Obstructo Prime 325 SC toedienings teen 'n 21 – 28 dag interval toegedien en die laaste (derde) toediening word 21 – 28 dae na die tweede spuit toegedien. ▶ 'n Maksimum van drie (3) Obstructo Prime 325 SC toedienings kan per seisoen toegedien word.
<p>WAARSKUWING:</p> <p>MIELIETOEDIENINGS: Die risiko van gestremde kopontwikkeling of "Arrested Ear Syndrome" (AES) op mielies neem dramaties toe wanneer enige toedienings (gewasbeskermingsprodukte, kunsmis, blaarvoeding, byvoegmiddels, ens.) tussen die V10 – VT (10^{de} blaar tot pluim verskyning) stadiums toegedien word. Toedienings tussen die V10 – VT groeistadiums van die gewas moet sover moontlik vermy word.</p>		
<p>NEUTE (amandel, kasjoe, makadama, pekan, pistachio)</p> <p>Bloeiselskroei (<i>Monilinia</i> sp.)</p>	<p>Grond- en Lugtoediening 500 – 1000 mℓ/ha</p> <p>SPUITVOLUMES</p>	<ul style="list-style-type: none"> ▶ Obstructo Prime 325 SC moet in 'n beskermende spuitprogram teen 10 – 14 dag intervalle, saam met geregistreerde swamdoders vanuit ander FRAC groepe, toegedien word. ▶ MOET NIE meer as twee (2) opeenvolgende Obstructo Prime 325 SC spuite binne die spuitprogram toedien nie.

<p>Makadama: Vrughuselvrot/Antraknose (<i>Colletotrichum</i> spp.)</p> <p>Makadama: "Rats tail"/Bloeiselsversenging (<i>Cladosporium cladosporioides</i>)</p> <p>Pekan skurfsiekte (<i>Cladosporium caryigenum</i>)</p>	<p><u>Grond-/Trekertoediening:</u> Gebruik watervolumes wat volledige bedekking sal verseker</p> <p><u>Lugtoediening:</u> 30 – 40 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ In boorde waar Alternaria die vorige seisoen voorgekom het: In laat lente, dien Obstructo Prime 325 SC as 'n hoë volume toe en herhaal die toediening 2 – 3 weke later. ▶ Vir bloeiselskroei: By vroeë blom, dien Obstructo Prime 325 SC toe en gaan voort met die spuitprogram tot en met die einde van blomblaarval. ▶ MOET NIE Obstructo Prime 325 SC saam met 'n adjuvant op kasjoe en makadamias gebruik nie. ▶ 'n Maksimum van vier (4) Obstructo Prime 325 SC toedienings kan per seisoen toegedien word.
<p>PAMPOENGEWASSE (spanspek, waatlemoen, pampoen, skorsie, zucchini, komkommer, agurkie, patty pans insluitend alle variëteite en kultivars hiervan)</p> <p>Antraknose (<i>Colletotrichum orbiculare</i>)</p>	<p>Grond- en Lugtoediening 730 – 1000 mℓ/ha</p> <p>SPUITVOLUMES <u>Grond-/Trekertoediening:</u> Minimum 500 ℓ water/ha</p> <p><u>Lugtoediening:</u> 30 – 40 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Begin by blomvorming, dien drie (3) opeenvolgende spuite toe, 7 – 10 dae uitmekaar. ▶ Dien in voldoende watervolume vir volledige bedekking toe. ▶ MOET NIE 'n benatter byvoeg nie. ▶ 'n Maksimum van drie (3) Obstructo Prime 325 SC toedienings kan per seisoen toegedien word.
<p>Poeieragtige meeldou (<i>Sphaerotheca fuliginea</i>) (<i>Erysiphe cichoracearum</i>)</p>	<p>Grondtoediening 625 mℓ/ha</p>	
<p>RISSIES (groen/soet/brand rissies, paprika, pimento en pikante rissies)</p> <p>Poeieragtige meeldou (<i>Leveillula taurica</i>)</p>	<p>Grondtoediening 250 mℓ/100 ℓ (Minimum 1000 mℓ/ha)</p>	<ul style="list-style-type: none"> ▶ Begin by blomvorming, dien twee (2) opeenvolgende spuite toe, 7 dae uitmekaar. ▶ Dien in voldoende watervolume vir volledige bedekking toe. ▶ Die byvoeging van 'n geregistreerde adjuvant kan effektiwiteit bevorder. ▶ 'n Maksimum van drie (3) Obstructo Prime 325 SC toedienings kan per seisoen toegedien word. ▶ Obstructo Prime 325 SC moet in 'n voorkomende spuitprogram saam met geregistreerde swamdoders vanuit ander FRAC groepe, toegedien word.
<p>TAMATIES</p> <p>Vroeë roes (<i>Alternaria solani</i>)</p>	<p>Grondtoediening 100 mℓ/100 ℓ water</p> <p>SPUITVOLUME: <u>Grond-/Trekertoediening:</u> 500 – 1400 ℓ water/ha</p>	<ul style="list-style-type: none"> ▶ Onder gunstige toestande vir siekteontwikkeling, moet Obstructo Prime 325 SC in blokke van twee (2) opeenvolgende bespuitings 7 – 10 dae uitmekaar toegedien word. ▶ Vir vroeë roes: Obstructo Prime 325 SC kan met 14 dae intervalle herhaal word, mits dit elke 7 dae met 'n geregistreerde swamdoder van 'n ander FRAC groeikode afgewissel word. ▶ Vir laatroes (Phytophthora infestans): die toediening van Obstructo Prime 325 SC afgewissel met chlorothalonil 500 SC of chlorothalonil 720 SC, teen die geregistreerde dosis, in 'n 7-dag siklus sal ook voorkomende beheer verskaf. ▶ 'n Maksimum van ses (6) Obstructo Prime 325 SC toedienings kan per seisoen toegedien word.

Raadpleeg die betrokke etikette vir **GEBRUIKSBEPERKINGS**, **WAARSKUWINGS** (insluitend **WEERSTANDSWAARSKUWING**), **VOORSORGMAATREËLS** en **GEBRUIKSAANWYSINGS** indien dit saam met **Obstructo Prime 325 SC** in 'n tenkmengsel toegedien word.

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