

HARVEST AZOXYSTROBIN 250 SC

Distributed by: Harvest Chemicals
Registration Holder/Registrasiehouer Harvest Crop Solutions (Pty)Ltd.
Reg.No. 2014/187205/07
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HARVEST
CHEMICALS



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

'n Suspensie konsentraat swamdodder met sistemiese, translaminêre en kontak aksie vir die voorkomende beheer van sekere swamsiektes op gewasse soos gelys.

CAUTION / VERSIGTIG

KEEP OUT OF REACH OF CHILDREN / HOU BUITE BEREIK VAN KINDERS

IMPORTANT: READ THE ATTACHED LEAFLET BEFORE USE OR OPENING BELANGRIJK: LEES AANGEHEGTE PAMFLET VOOR GEBRUIK OF OOPMAAK

Batch No	Reg. No. L 10883, Act No 36 of 1947.	UN No. 3082	Reg Nr L 10883, Wet Nr. 36 van 1947.	Lot Nr
	FRAC FUNGICIDE GROUP 11	11	SWAMDODDERGROEPKODE	
Date of manufacture	Active Ingredient: Azoxystrobin (strobilurin)	250g/l	Aktiewe Bestanddeel: Asokisitrobieën (Strobilurien)	Vervaardigings- datum
	Nett Volume	5l	Netto Volume	



CAUTION
VERSIGTIG



WARNINGS:

Withholding Period:

(Minimum number of days between last application and harvest).

Potatoes, maize, sweet corn and tomatoes.....	7 days
Cruciferae (Brassicas).....	14 days
Cucurbits.....	3 days
Dry beans.....	45 days
Peppers.....	14 days
Onions.....	20 days

NOTE: Compliance with these withholding periods will ensure that residues do not exceed local Maximum Residue Limits.

- Harmful if swallowed.
- Toxic to fish and harmful to other aquatic life.
- Avoid contact with skin or eyes since product may cause eye and skin irritation.
- Store away from food and feed.
- Keep out of reach of children, uninformed persons and animals.
- Re-entry: Do not enter treated area until spray deposit has dried.
- Aerial applications:

Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings.
Do not spray over or allow drift to contaminate water or adjacent areas.

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, since the action 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 a pest against the remedy concerned as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or 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.

2. PRECAUTIONS

- Do not eat drink or smoke whilst handling this product.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Wear rubber gloves and a face shield when handling the concentrate. If you get it in your eyes, flush it out at once. If you get it on your skin, wash it off at once. If you spill it on your clothes, change and wash them.
- Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner.
- While spraying, avoid contact with the spray as much as possible. Avoid spray drift onto other crops, grazing rivers or dams.
- Clean applicator thoroughly after use and dispose of wash water where it will not contaminate crops, grazing, rivers or dams.
- Destroy empty container and do not use for any other purpose.
- Change and wash your work clothes. Wash yourself.

3. RESISTANCE MANAGEMENT

For resistance management, **HARVEST AZOXYSTROBIN 250 SC** is classified as a group code 11 fungicide. Any fungus population may contain individuals naturally resistant to **HARVEST AZOXYSTROBIN 250 SC** and other group code 11 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly and exclusively in programs. These resistant fungi may not be controlled by **HARVEST AZOXYSTROBIN 250 SC** or any other group code 11 fungicides.

To delay fungicide resistance:

- Avoid exclusive repeated use of fungicides from the same fungicide group code. Alternate or tank mix with products from different group codes.
- Refer to individual product labels when alternating products or when using tank mixtures with products in fungicide group codes, 7, 27, 28, 29, 30 and M.
- Integrate other control methods (chemical, cultural, biological) into disease control programs.

For specific information on resistance management contact the registration holder of this product.

1.General:

- To prevent pathogen populations from becoming resistant to **HARVEST AZOXYSTROBIN 250 SC**, it is essential that applications of **HARVEST AZOXYSTROBIN 250 SC** be alternated with other registered fungicides from a different chemical class than Azoxystrobin (strobilurin). This resistance management strategy should not include alternation with or tank mixes of fungicides to which resistance has already developed of fungicides with the same mode of action.
- **HARVEST AZOXYSTROBIN 250 SC** should always be applied preventatively as described in the recommended table.
- Do not reduce the dosage rates below that recommended on the label.
- Never use any of the other strobilurin or strobilurin related chemicals in the same programme with **HARVEST AZOXYSTROBIN 250 SC**.

DIRECTIONS FOR USE

Use Only As Directed

Poisons Helpline: 0861 555 777

4.1. Compatibility:

HARVEST AZOXYSTROBIN 250 SC is compatible with **Lambda-cyhalothrin (pyrethroid) 50 g/ℓ** or **Methamidophos 585 g/ℓ**.

4.2. Mixing instructions:

Half fill the spray tank with clean water. Add the required amount of **HARVEST AZOXYSTROBIN 250 SC** to the spray tank and top up with water tot the required volume while agitating continuously. If **HARVEST AZOXYSTROBIN 250 SC** needs to be used in tank mix combinations, first mix small quantities of the chemicals seperately with water. Add these mixtures together while agitating and check for any signs of incompatibility e.g. flocculation, etc. In this instance, full cognisance must be taken of all warnings, precautions and directions for use on that label. Continue agitation throughout application and do not allow the tank mixture to stand still for any period of time.

4.3. Application:

Ensure that the applicator to be used is in a good working condition and correctly calibrated. Use the spray volumes as indicated to ensure good coverage.

4.3.1. Aerial applications:

Precautions: Aerial application of **HARVEST AZOXYSTROBIN 250 SC** may only be done by a registered aerial application operator using a correctly calibrated, registered 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. It is therefore essential that the following criteria be met:

- a)Application parameters:
- Volume: A volume of 30 – 40 ℓ water / ha is recommended in potatoes and maize. As **HARVEST AZOXYSTROBIN 250 SC** has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy or be held responsible for any adverse effects if the product is applied eairially at a lower volume rate than recommended above.
 - Droplet coverage: A droplet coverage of 25 – 35 droplets pet cm2 must be recovered at the target.
 - Droplet size: A droplet spectrum with a VMD of 280 – 300 microns is recommended. Ensure that the production of fine droplets (less than 150 microns – high drift & evaporation potential) is restricted tot a minimum.
 - Flying heighth: The height of the spray boom should be maintained at 3 – 4 metres above the target. Do not spray when aircraft is in a climb, at the top or during a dive, or when banking.

b)Equipment:
Use suitable atomising equipment (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and coverage but which will ensure the minimum loss of product either through endodrift (within target field) or exodrift (outside target field). The operator must use a setup that will produce a droplet spectrum with the lowest possible relative span.

All nozzles / atomisers should be positioned within the inner 60 % to 75 % of the wingspan to prevent droplets from entering the wingtip vortices.

c)Meteorological conditions:
The difference in temperature between the wet and dry bulb thermometers, of a whitling hygrometer, should not exceed 8 ° C. The addition of a suitable anti-evaporant is recommended if the VMD of the droplets is less than 200 – 250 microns.

Stop spraying if the wind speed exceeds 15 km/h.

Aerial application of **HARVEST AZOXYSTROBIN 250 SC** must not be done under turbulent unstable conditions during the heat of the day when rising thermals and downdraughts occur. Also note that the application of this product under temperature inversion conditions (spraying in or above the inversion layer) may lead to the following:

- Reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage)
- Damage to other sensitive crops and or non-target areas through the movement of the suspended spray cloud away from the target field.

Influence of rain on application:
Should it rain within two hours after application, the application must be repeated.

4.3.2. CRUCIFERAE (BRASSICA)

- **HARVEST AZOXYSTROBIN 250 SC** can be used in a spray programme with **CHLOROTHALONIL 500 g/ℓ** and **CHLOROTHALONIL 720 g/ℓ**.
- Do not apply more than two applications of **HARVEST AZOXYSTROBIN 250 SC** to Brassicas in the same season.
- Do not apply **HARVEST AZOXYSTROBIN 250 SC** at the first or last application in the spray programme.
- Never use **HARVEST AZOXYSTROBIN 250 SC** as a corrective treatment or after an unsuccessful application of any product.

CROP / DISEASE	DOSAGE	REMARKS
CRUCIFERAE (BRASSICAS) White blister (<i>Albugo candida</i>)	500 – 750 mℓ / ha	Apply as a full cover preventive spray. Apply two consecutive sprays 7 days apart when the weather favours the disease. Use the higher rate when disease pressure is high. Apply in 45 – 700 ℓ water / ha depending on the growth stage of the plant. Do not apply more than two applications per growth cycle. Apply in a spray programme together with CHLOROTHALONIL 500 g/ℓ and CHLOROTHALONIL 720 g/ℓ .

4.3.3. MAIZE

- Start application before 3 % of the total leaf surface area shows disease symptoms OR when symptoms are present on the basal 3 – 5 leaves.
- Never use **HARVEST AZOXYSTROBIN 250 SC** as a corrective or curative application or after an unsuccessful application of any product.
- With short season hybrids when the first spray was applied after pollination, it will probably be sufficient to control the disease (a second spray might not be necessary).
- **HARVEST AZOXYSTROBIN 250 SC** can be used in a spray programme with **DIFENOCONAZOLE 250 g/ℓ**.
- Do not apply more than two applications of **HARVEST AZOXYSTROBIN 250 SC** to maize in the same season.
- When multiple applications are necessary to control the disease, the last application for the season should be done with fungicides from a different chemical group other than strobilurin i.e. triazoles namely **DIFENOCONAZOLE 250 g/ℓ**.

CROP / DISEASE	DOSAGE
MAIZE AND SWEETCORN Grey leaf spot (<i>Cercospora zeae-maydis</i>)	Ground and aerial application 400 mℓ HARVEST AZOXYSTROBIN 250 SC / ha or 300 mℓ HARVEST AZOXYSTROBIN 250 SC / ha followed by 300 mℓ DIFENOCONAZOLE / ha.
REMARKS: With medium to long-season hybrids or if the first application was applied within three weeks before pollination, a follow-up application with DIFENOCONAZOLE 250 g/ℓ must be applied 4 - 5 weeks later.	
Grey leaf spot (<i>Cercospora zeae-maydis</i>)	300 mℓ HARVEST AZOXYSTROBIN 250 SC / ha followed by 300 mℓ HARVEST AZOXYSTROBIN 250 SC / ha followed by 300 mℓ DIFENOCONAZOLE / ha.
REMARKS: In certain cases where the initial application was applied at a very early stage, a third application might be necessary. In this case the first two applications are made with HARVEST AZOXYSTROBIN 250 SC at intervals of 4 - 5 weeks. The last application must be done with DIFENOCONAZOLE 250 g/ℓ 4 - 5 weeks after the second application	
Rust (<i>Puccinia sorghi</i>) The above mentioned rates of HARVEST AZOXYSTROBIN 250 SC will also control rust (<i>Puccinia sorghi</i>) if present. Refer to Resistant Management Strategy above.	
Spray volumes: Tractor application: 300 – 450 ℓ water / ha High clearance tractor application: 150 – 300 ℓ water / ha Aerial application: 40 ℓ water / ha Knapsack sprayer application: 60 – 70 ℓ water / ha	

Suggested Spray programme:				
Number of applications per season	Number of HARVEST AZOXYSTROBIN 250 SC applications /per season	HARVEST AZOXYSTROBIN 250 SC rate: product / ha	Number of triazole applications / season	DIFENOCONAZOLE 250 g/ℓ rate: product / ha
1	1	400mℓ/ha	0	N/A
2	1	300mℓ/ha	1	Registered rate
3	2	300mℓ each	1	Registered rate

Consult the **DIFENOCONAZOLE 250 g/ℓ** label for full particulars.

4.3.4. POTATOES

- Apply in a preventive spray programme and alternate with **CHLOROTHALONIL 720 g/ℓ** every 7 days. Start application before the disease appears or when weather conditions favour the development of the disease. Ensure good coverage.
- Do not apply **HARVEST AZOXYSTROBIN 250 SC** when the disease is already present. In this case, an appropriate systemic product should be applied. Apply at least two applications with a systemic product (e.g. **DIFENOCONAZOLE 250 g/ℓ** or **CHLOROTHALONIL 500 g/ℓ**), then return to the preventive spray programme as suggested.
- The total number of **HARVEST AZOXYSTROBIN 250 SC** applications per season, must not exceed 30 % (normally three) of the total number of applications in the **HARVEST AZOXYSTROBIN 250 SC / CHLOROTHALONIL 720 g/ℓ** spray programme.

Suggested spray programme for the control of early and late blight:

- The first 2 – 3 applications must be made with **CHLOROTHALONIL 720 g/ℓ** followed by a **HARVEST AZOXYSTROBIN 250 SC** application 7 days later in the early flowering stage. Maintain this 7 day alternating product spray programme with **CHLOROTHALONIL 720 g/ℓ** until a maximum of 3 **HARVEST AZOXYSTROBIN 250 SC** applications (or equal to a third of the total fungicide applications) have been made. (Refer to Resistance Management Strategy above). Thereafter, continue with the **CHLOROTHALONIL 720 g/ℓ** applications throughout the rest of the growing season.
- Do not apply **HARVEST AZOXYSTROBIN 250 SC** as the first or last application in the spray programme.
- Apply **CHLOROTHALONIL 720 g/ℓ** at the rates indicated on the **CHLOROTHALONIL 720 g/ℓ** label.
- The first 2 - 3 **CHLOROTHALONIL 720 g/ℓ** applications can be replaced by a **CHLOROTHALONIL 500 g/ℓ** application according to the label.

The suggested spray programme on potatoes will also control late blight (*Phytophthora infestans*).

CROP / DISEASE	DOSAGE
POTATOES Early blight (<i>Alternaria solani</i>)	Ground application 300 mℓ HARVEST AZOXYSTROBIN 250 SC /ha alternated with CHLOROTHALONIL 720 g/ℓ at 1 – 2 ℓ / ha in at least 500 ℓ water / ha. Aerial application 330 mℓ HARVEST AZOXYSTROBIN 250 SC / ha alternated with CHLOROTHALONIL 720 g / ℓ at 1 – 2 ℓ / ha in 30 – 40 ℓ water / ha.

4.3.5. TOMATOES

- Apply in a preventive spray programme and alternate with **CHLOROTHALONIL 720 g/ℓ** every 7 days. Start application before the disease appears or when weather conditions favour the development of the disease. Ensure good coverage.
- Do not apply **HARVEST AZOXYSTROBIN 250 SC** when the disease is already present. In this case, an appropriate systemic product should be applied. Apply at least two applications with a systemic product (e.g. **DIFENOCONAZOLE 250 g/ℓ** or **CHLOROTHALONIL 500 g/ℓ**), then return to the preventive spray programme as suggested.
- The total number of **HARVEST AZOXYSTROBIN 250 SC** applications per season, must not exceed 30 % (up to six) of the total number of applications in the **HARVEST AZOXYSTROBIN 250 SC / CHLOROTHALONIL 720 g/ℓ** spray programme.
- **HARVEST AZOXYSTROBIN 250 SC** and **CHLOROTHALONIL 720 g/ℓ** should be applied in water volumes of a minimum of 300 ℓ to a maximum of 1000 ℓ / ha on tomatoes from 10 to 130 cm high respectively.

Suggested spray programme:

- The first 2 – 3 applications must be made with **CHLOROTHALONIL 720 g/ℓ** followed by a **HARVEST AZOXYSTROBIN 250 SC** application 7 days later in the early flowering stage. The **HARVEST AZOXYSTROBIN 250 SC** may be applied earlier if weather conditions favours infection). Maintain this 7 day alternating product spray programme with **CHLOROTHALONIL 720 g/ℓ** until a maximum of 6 **HARVEST AZOXYSTROBIN 250 SC** applications (or equal to a third of the total fungicide applications) have been made. (Refer to Resistance Management Strategy above). Thereafter, continue with the **CHLOROTHALONIL 720 g/ℓ** applications throughout the rest of the growing season.
- Do not apply **HARVEST AZOXYSTROBIN 250 SC** as the first or last application in the spray programme.
- Apply **CHLOROTHALONIL 720 g/ℓ** at the rates indicated on the **CHLOROTHALONIL 720 g/ℓ** label.
- The first 2 - 3 **CHLOROTHALONIL 720 g/ℓ** applications can be replaced by **CHLOROTHALONIL 500 g/ℓ** applications according to the label.

The suggested spray programme on tomatoes will also control early blight (*Alternaria solani*).

CROP / DISEASE	DOSAGE
TOMATOES Late blight (<i>Phytophthora infestans</i>)	Ground application 80 – 120 mℓ HARVEST AZOXYSTROBIN 250 SC / 100 ℓ water alternated with CHLOROTHALONIL 720 g/ℓ at 100 – 380 mℓ / 100 ℓ water according to the disease pressure as specified on the CHLOROTHALONIL 720 g/ℓ label. Aerial application 330 mℓ HARVEST AZOXYSTROBIN 250 SC / ha alternated with CHLOROTHALONIL 720 g / ℓ at 1 – 2 ℓ / ha in 30 – 40 ℓ water / ha.

4.3.6. CUCURBITS

- **HARVEST AZOXYSTROBIN 250 SC** can be used in a spray programme with **PENCONAZOLE 200 g/ℓ**, **SULPHUR 800 g/kg** and **CHLOROTHALONIL 720 g/ℓ**.
- Do not apply more than two applications of **HARVEST AZOXYSTROBIN 250 SC** to Cucurbits in the same season.
- Do not apply **HARVEST AZOXYSTROBIN 250 SC** at the first or last application in the spray programme.
- Never use **HARVEST AZOXYSTROBIN 250 SC** as a corrective treatment or after an unsuccessful application of any product.
- Do not apply **HARVEST AZOXYSTROBIN 250 SC** with any wetting agents such as **NONYLPHENOLETHOXYLATE 250 g/ℓ**.

CROP / DISEASE	DOSAGE	REMARKS
CUCURBITS Powdery mildew (<i>Sphaerotheca fulliginea</i> / <i>Erysiphe cichoracearum</i>)	400 – 500 mℓ / ha	Apply as a full cover preventive spray. Apply two consecutive sprays 7 days apart starting at flower initiation. Use the higher rate when conditions favour disease development. Apply in sufficient water volumes to ensure adequate coverage. Apply in a spray programme together with PENCONAZOLE 200 g/ℓ and CHLOROTHALONIL 720 g/ℓ .

4.3.7. DRY BEANS

- **HARVEST AZOXYSTROBIN 250 SC** can be used in a spray programme with **DIFENOCONAZOLE 250 g/ℓ**.
- Do not apply more than two applications of **HARVEST AZOXYSTROBIN 250 SC** to dry beans in the same season.
- Do not apply **HARVEST AZOXYSTROBIN 250 SC** at the first or last application in the spray programme.
- Never use **HARVEST AZOXYSTROBIN 250 SC** as a corrective treatment or after an unsuccessful application of any product.

CROP / DISEASE	DOSAGE	REMARKS
DRY BEANS Anthracnose (<i>Colletotrichum lindemuthianum</i>)	400 m ℓ / ha	Apply as a full cover preventive spray. Apply two consecutive days 14 days apart starting at flower initiation. Apply in sufficient water volumes to ensure adequate coverage. For optimal fungal disease control, apply in a spray programme together with DIFENOCONAZOLE 250 g / ℓ . The above mentioned rate of HARVEST AZOXYSTROBIN 250 SC will also control rust (<i>Uromyces appendiculatus</i>) if present. Refer to Resistant Management Strategy above.

4.3.9. ONIONS

- **HARVEST AZOXYSTROBIN 250 SC** can be used in s spray programme with other registered fungicides.
- Do not apply more than two applications of **HARVEST AZOXYSTROBIN 250 SC** to onions in the same season.
- Do not apply **HARVEST AZOXYSTROBIN 250 SC** at the first or last application in the spray programme.
- Never use **HARVEST AZOXYSTROBIN 250 SC** as a corrective treatement or after an unsuccessful application of any product.

CROP / DISEASE	DOSAGE	DOSAGE
ONIONS Purple Blotch (<i>Alternaria porri</i>) Stemphylium Leaf Blotch (<i>Stemphylium vesicarium</i>)	400 mℓ / ha	Apply as a full cover preventive spray. Apply two consecutive sprays 14 days apart starting when leaf bases begin to thicken or later in the season when risk of disease development is high. Apply in sufficient water volumes to ensure adequate coverage.
Note: Due to the waxy nature of onion leaves, it is recommended the HARVEST AZOXYSTROBIN 250 SC be applied with NONYLPHENOLETHOXYLATE 250 g/ℓ at a rate of 0.25 % to ensure adequate coverage and subsequent disease control.		