DefCon 250 EC

Act No. 36 of 1947 / Wet Nr. 36 van 1947
SA Reg. No. L12032

READ ATTACHED PACKAGED LEAFLET BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS

GROUP	3	FUNGICIDE

PRODUCT INFO:
An emulsifiable concentrate, systemic fungicide for the control of diseases on crops as listed.

PRODUK INFO:
'n Emulgeerbare konsentraat, sistemiese swamdoder vir die beheer van siektes op gewasse soos aangedui.



WARNING

HAZARD STATEMENTS:
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
Suspected of causing cancer.
Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS:
Wear protective gloves, protective clothing, eye, and face protection.
Wash hands, face, and exposed skin thoroughly after handling. Do not touch eyes.

Active Ingredient / Aktiewe Bestanddeel

Difenoconazole (triazole) 250 g/ℓ Difenokonasool (triasool)

Net (ℓ) SEE CONTAINER

Registration Holder / Registrasiehouer

ICA INTERNATIONAL CHEMICALS (PTY) LTD

What is GHS?

ICA International Chemicals (Pty) Ltd. • Reg. No. 2001/013319/07
28 Planken Street • Plankenbrug Industrial • STELLENBOSCH • 7600 • SOUTH AFRICA
Tel. +27-21 886 9812 • www.icaonline.co.za

Batch No. SEE CONTAINER Lot Nr.
Date of Manufacture Datum van Vervaardiging
Expiry Date Vervaldatum

In case of poisoning, call the following number: Human Poison Helpline +27-861 555 777
Emergency number: Griffon Poison Information Centre +27-82 446 8946

Group III UN No. / VN Nr. 3082 SA-DC-001

DefCon 250 EC

Act No. 36 of 1947
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An emulsifiable concentrate systemic fungicide for the control of diseases on crops as listed.

ACTIVE INGREDIENT:
Difenoconazole (triazole)..... 250 g/ℓ

REGISTERED BY:
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28 Planken Street • Plankenbrug Industrial • Stellenbosch • 7600 • South Africa
Tel. +27-21 886 9812 • Website www.icaonline.co.za

WARNINGS

Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation
Suspected of causing cancer
Very toxic to aquatic life with long lasting effects

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

- *Apples and Pears* ..... *14 Days*
- *Beans* ..... *14 Days*
- *Canola* ..... *30 Days*
- *Carrots.* ..... *7 Days*
- *Citrus* ..... *90 Days*
- *Grapes (Table and Wine)* ..... *28 Days*
- *Groundnuts (fodder)* ..... *21 Days*
- *Maize and Sweetcorn* ..... 14 Days
- *Potatoes* ..... *7 Days*
- *Soya Beans* ..... *18 Days*
- *Tomatoes* ..... *7 Days*
- *Tree Nuts* ..... *45 Days*

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 **DEFCON 250 EC** 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. **DEFCON 250 EC** 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.
Keep out of reach of children.
Read carefully and follow all instructions.
Obtain, read, and follow all safety instructions before use.
Avoid breathing dust/fumes/gas/mist/vapours/spray.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye and face protection.
Wash hands, exposed skin and face thoroughly after handling. Do not touch eyes.
IF ON SKIN: Wash with plenty of soap and water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If exposed or concerned, get medical advice.
Get medical help if you feel unwell.
Specific treatment; see first aid measures on this label.
If skin irritation occurs: Get medical help.
If eye irritation persists: Get medical help.
Take off contaminated clothing and wash it before reuse.
Collect spillage.
Store in a well-ventilated place. Keep container tightly closed.

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:

Difenoconazole (Cas no: 119446-68-3) Eye Irritation Category 2, H319; Carcinogenicity Category 2, H351; Aquatic Acute Category 1, H400; Aquatic Chronic Category 1, H410 (25 % w/v).
Propylene Carbonate (Cas no: 108-32-7) Eye Irritation Category 2, H319 (<50 % w/v).
N,N-Dimethyldecan-1-amide (Cas no: 14433-76-2) Skin Irritation Category 2, H315; Eye Irritation Category 2, H319; Specific Target Organ Toxicity, Single Exposure, Respiratory tract irritation, H335 (<30 % 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 immediately 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, DO NOT induce vomiting, unless instructed to do so by poison control center 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 treatment should be based on observed signs and symptoms of distress in the patient.
POTENTIAL HEALTH EFFECTS, ACUTE AND DELAYED:	• No significant adverse effects were reported. Irritation is possible for eyes. Effects of exposure (inhalation, ingestion, or skin contact) to substance may be delayed.

RESISTANCE WARNING

For resistance management: DEFCON 250 EC is a FRAC* group code **(3)** fungicide. Any fungal population may contain individuals naturally resistant to **DEFCON 250 EC** and other group code **(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 **DEFCON 250 EC** or any other group code **(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 (chemical, cultural and biological) into the disease control programme.
- Where resistance has been confirmed or is suspected, do not apply **DEFCON 250 EC** alone, but use it in combination with a suitable registered fungicide from a different FRAC group. 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.
- In order to maintain the efficacy of **DEFCON 250 EC**, it is necessary to prevent the development of resistance of the diseases against the code **(3)** fungicide group.

For specific information on resistance management, contact the registration holder of this product or contact your local supplier.

*FRAC – Fungicide Resistance Action Committee. Visit the FRAC website at https://www.frac.info/ for more information.

MODE OF ACTION

Difenoconazole is a systemic triazole fungicide belonging to the sterol biosynthesis inhibitors (FRAC Group Code 3). It acts by inhibiting C14-demethylase, an essential enzyme in the ergosterol biosynthesis pathway. The disruption of ergosterol production interferes with fungal cell membrane formation, thereby inhibiting growth and development of the pathogen. After application, difenoconazole is absorbed by leaves and exhibits local systemic and translaminar movement, with limited acropetal translocation in the xylem. These properties enable both protective and curative activity against a broad spectrum of plant fungal diseases.

USE RESTRICTIONS

- Apply **DEFCON 250 EC** preventatively or at the onset of disease development, as specified in the recommendations table.
- Adhere to the dosage rates recommended on the label, DO NOT reduce the recommended dosage rates.
- **DEFCON 250 EC** must be applied as a full cover spray, unless specified otherwise.
- 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.
- The uptake and systemic activity of **DEFCON 250 EC** may be adversely affected when crops are subjected to stress, including nutrient- and drought-related stress. Applications should therefore be avoided while crops are experiencing such conditions.
- Do not apply **DEFCON 250 EC** if rain is expected within two (2) hours after application.

DIRECTIONS FOR USE – use only as directed

COMPATIBILITY:

DEFCON 250 EC is compatible with most fungicides, insecticides and acaricides. The compatibility of **DEFCON 250 EC** 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 and water quality may vary between farms, it is recommended that a small-scale physical compatibility test be conducted before preparing the tank mixture. Always consult the labels of products to be tank mixed with **DEFCON 250 EC**.

MIXING INSTRUCTIONS:

Half-fill the spray tank with clean water. Shake the **DEFCON 250 EC** 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 and emulsifiable concentrates last. If mixing partners are packed in water-soluble bags, add the soluble bags first and then **DEFCON 250 EC**. Top up the mixing tank with the required quantity of 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. Replace cap on product container immediately after use.

CLEAN SPRAY EQUIPMENT DIRECTLY AFTER USE: Special care and attention must be taken in cleaning all equipment used in the mixing and application of **DEFCON 250 EC** to avoid damage to other crops.

GROUND APPLICATION:

- **DEFCON 250 EC** can be applied with conventional high volume spray equipment. The nozzles should be fitted with hollow cone tips that give medium to fine droplets.
- For **row crops**, apply **DEFCON 250 EC** in a spray mix volume of 300 – 500 ℓ per ha.
- 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.
- Ensure good coverage of the whole plant (including the stems and leaves) by using sufficient water volumes and suitable spraying equipment.
- Since **DEFCON 250 EC** 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 at a lower volume rate than recommended.
- Do not apply **DEFCON 250 EC** if rain is expected 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 **DEFCON 250 EC** 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 **DEFCON 250 EC** 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.
- Droplet coverage: A droplet coverage of 25 – 35 droplets per square centimetre (cm^2) must be recovered at the target area.
- Droplet size: A droplet spectrum with a volume median diameter (VMD) 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.
- Do not apply **DEFCON 250 EC** if rain is expected within two (2) hours after application.

APPLICATION TABLE		
CROP and DISEASE	**DOSAGE**	**REMARKS**
APPLES & PEARS **Scab** (*Venturia inaequalis*)	**High Volume Rate per 100 ℓ water:** 6 mℓ **DEFCON 250 EC** PLUS 100 mℓ captab 500 SC OR 75 g mancozeb 75 WG FOLLOWED BY 45 mℓ dithianon 500 SC	▸ Apply **DEFCON 250 EC** + captab 500 SC or mancozeb 75 WG followed by dithianon 500 SC in a protective spray programme. Apply as a full-cover spray to the point of run-off or with at least a ¼ of the water volume as a low-volume application. ▸ When following a protective contact fungicide spray programme, **DEFCON 250 EC** may be applied as a curative treatment within four (4) days of the start of an infection period. In such cases, apply 10 mℓ **DEFCON 250 EC** + 100 mℓ captab 500 SC or 75 g mancozeb 75 WG per 100 ℓ water. ▸ Captab and mancozeb can be replaced by other contact fungicides. ▸ Curative applications should only be made when reliable disease-prediction systems are in place. ▸ **Spray intervals according to developmental stages:** • From green tip throughout pre-blossom: Every 7 days. • After blossom: Every 10 – 14 days. • Thereafter, change to dithianon 500 SC at 45 mℓ/100 ℓ water and continue applications at 14-day intervals. • Switch to a protective contact fungicide spray programme in December. ▸ **Resistance management**: Do not exceed four (4) **DEFCON 250 EC** applications per season.
Water volume (ℓ) per hectare required for full cover spray using tree row volume (TRV) calculation: Tree height and diameter to be measured in summer when trees are in full flush. Use the water volume per hectare to calculate the required amount of **DEFCON 250 EC** per hectare, depending on the various growth stages. It is important that the correct amount of **DEFCON 250 EC** per hectare is applied**.** • **TRV** (From green tip to ± 30 % blossom) ℓ water/ha = [(Tree Height X Tree Diameter X 937)/Row Width] X 60 % • **TRV** (From ± full blossom to ± mid-November (Mid-Season)) ℓ water/ha = [(Tree Height X Tree Diameter X 937)/Row Width] X 80 % • **TRV** (From ± beginning of December) ℓ water/ha = [(Tree Height X Tree Diameter X 937)/Row Width] X 100 %		
BEANS **Brown rust** (*Uromyces appendiculatus*)	**Ground Application:** 250 mℓ/ha every 10 – 14 days OR 325 mℓ/ha every 18 – 21 days (dry beans) **Aerial Application:** 300 mℓ/ha every 10 – 14 days (dry beans)	▸ Apply **DEFCON 250 EC** as part of a protective spray programme. ▸ Start applications at the beginning of flowering or earlier for highly susceptible cultivars, or as soon as disease symptoms appear. ▸ Continue applications during active growth until the crop nears senescence. ▸ Ensure thorough coverage at all times. ▸ For improved coverage, apply **DEFCON 250 EC** with a suitable registered non-ionic adjuvant/wetter containing polyether-polymethylsiloxane copolymer at the recommended label rate.
CANOLA **Stem canker (syn. Black leg)** (*Leptosphaeria maculans* Anam. *Phoma lingam*)	**Ground Application:** 500 mℓ/ha	▸ Apply **DEFCON 250 EC** as part of a protective spray programme. ▸ For **stem canker**: apply after the 4-leaf stage when disease symptoms appear. ▸ A follow-up application may be needed if symptoms re-occur. ▸ Do not apply more than two (2) applications of **DEFCON 250 EC** per season.
CARROTS **Leaf blight** (*Alternaria dauci* & *Cercospora carotae*)	**Ground Application:** 300 mℓ/ha OR 500 mℓ/ha	▸ Apply **DEFCON 250 EC** as part of a protective spray programme before the onset of disease development. ▸ Restrict Group 3 fungicide applications to periods conducive to disease development. ▸ Use the lower rate at 7-day intervals. ▸ Use the higher rate at 10 – 14-day intervals when disease pressure is high. ▸ Do not apply more than two (2) consecutive applications before alternating with, or tank mixing with, a fungicide from a different FRAC group. ▸ Do not exceed six (6) applications of **DEFCON 250 EC** per season. ▸ The lowering of inoculum by crop sanitation, for example removing volunteer plants, crop rotation, the ploughing in, burying deeply, or

		removing and composting crop residues after harvest, will assist in disease control.

CITRUS
Navels, Clementines and Mandarins
 	
Navel-end-rot / Black core rot
(*Alternaria citri*)
	Ground Application:
	40 – 60 mℓ/100 ℓ water
		▸ Apply two (2) sprays:
		  ▸ First application at 50 % petal drop.
		  ▸ Second (and final) application at 100 % petal drop.
		▸ Use a medium cover spray, about 20 ℓ application mixture per tree, according to tree size and density of canopy.
		▸ In areas and orchards with a history of Alternaria diseases the higher rate must be used.
		▸ **Seasonal limit:** Total **DEFCON 250 EC** use must not exceed 3 ℓ/ha per season, last application at 100 % petal fall.
		▸ Apply the two (2) **DEFCON 250 EC** applications as part of a season-long spray programme for the control of Alternaria brown spot (*Alternaria alternata*) with fungicides from other FRAC groups.

Brown spot (*Alternaria alternata*)	**Ground Application:** 40 – 60 mℓ/100 ℓ water PLUS 200 g/100 ℓ water mancozeb 80 WP	
GROUNDNUTS **Early leaf spot** (*Cercospora arachidicola*)	**Ground Application (dry land):** 300 mℓ/ha followed by 200 mℓ/ha every 10 – 14 days OR 325 mℓ/ha every 18 – 21 days	▸ Apply **DEFCON 250 EC** as part of a protective spray programme. ▸ Start **DEFCON 250 EC** applications at the initial stages of flowering (approximately 10 – 12 weeks after planting), or earlier if disease development occurs. ▸ Continue all spray programmes until the plants begin to senesce naturally. ▸ For improved coverage, apply **DEFCON 250 EC** with a suitable registered non-ionic adjuvant/wetter containing polyether-polymethylsiloxane copolymer at the recommended label rate. ▸ Aerial application of **DEFCON 250 EC** should only be considered as an emergency measure when conditions are unfavourable for ground application.
	Ground Application (irrigation): 300 mℓ/ha every 10 – 14 days OR 400 mℓ/ha every 18 – 21 days	
	Aerial Application 350 mℓ/ha every 14 – 21 days (dry land) OR every 10 – 14 days (irrigation)	
MAIZE AND SWEETCORN **Grey leaf spot** (*Cercospora zeae-maydis*)	**Ground Application:** 300 mℓ/ha	▸ Start **DEFCON 250 EC** applications when disease is present on the bottom leaves, before more than 2 % of the total leaf area is infected, but before the three leaves below the cob displays symptoms. ▸ A follow-up application 14 – 21 days later may be required.
Northern leaf blight (*Exserohilum turcicum*)		▸ Start **DEFCON 250 EC** applications at the first signs of disease. ▸ Applications must start before more than 2% of the total leaf area is infected. ▸ Follow-up the application 14 – 21 days later.
<u>WARNING:</u> **MAIZE APPLICATIONS:** The risk of Arrested Ear Syndrome (Blunt Ear Syndrome) increases dramatically when any applications (crop protection products, fertilisers, foliar feeds, adjuvant/wetters, 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.		
ORNAMENTALS **(including Carnations, Gladiolus, Hypericum flowers, Iris and Roses)** **Leaf spot** (*Mycosphaerella* spp.)	**Ground Application:** 500 mℓ/ha	▸ Start **DEFCON 250 EC** applications at the first signs of disease or when conditions are favourable for disease development. ▸ Repeat applications at 7 – 14-day intervals. ▸ Apply at shorter intervals under high disease pressure.

POTATOES **Early blight** (*Alternaria solani*)	**Ground and Aerial application:** 350 mℓ – 500 mℓ/ha	▸ Include **DEFCON 250 EC** in a protective spray programme at 7 – 14-day intervals. ▸ Commence the spray programme before flowering, or earlier if Alternaria symptoms are observed. ▸ Continue applications until the crop approaches senescence. ▸ Use the higher rate under conditions favouring disease development. ▸ Do not apply more than two (2) consecutive solo applications of **DEFCON 250 EC** before alternating with a fungicide from a different FRAC group. ▸ For ground applications: Apply at a spray volume of approximately 500 ℓ/ha to ensure adequate coverage. ▸ For improved coverage, apply **DEFCON 250 EC** with a suitable registered non-ionic adjuvant/wetter containing polyether-polymethylsiloxane copolymer at the recommended label rate.
SOYA BEANS **Soybean rust** (*Phakopsora pachyrhizi*)	**Ground Application:** 325 mℓ/ha	▸ Apply **DEFCON 250 EC** preventatively or at the first appearance of disease symptoms. Apply a second application 14 – 21 days later. ▸ Use the shorter interval when conditions favour disease development (15 – 28 °C with high humidity). ▸ If disease develops during flowering or early pod fill, an additional application may be required. ▸ Where infection occurs late in the season, a single application spray should be sufficient. ▸ It is essential to ensure thorough coverage of the foliage.
TABLE AND WINE GRAPES **Powdery mildew** (*Erysiphe necator* (previously *Uncinula necator*) anamorph *Oidium tuckerii)*	**Ground Application:** 12 mℓ/100 ℓ water	▸ Apply **DEFCON 250 EC** as a preventative full cover spray, ensuring thorough coverage to the point of run-off in a spray programme with other fungicides from different FRAC groups. ▸ Start applications when shoots reach 100 – 250 mm in length. ▸ Repeat applications at 14-day intervals and do not exceed the specified interval. ▸ Do not apply **DEFCON 250 EC** after bunch closure. ▸ Do not exceed four (4) applications per season. ▸ Maintain thorough and uniform coverage of foliage and fruiting zones throughout the programme.
<u>WATER VOLUME REQUIRED FOR HIGH VOLUME APPLICATIONS:</u> ▸ For **table grapes**: Begin at around 500 ℓ/ha at early shoot growth (shoots 10 – 25 cm) and gradually increase as the canopy expands to approximately 1200 ℓ/ha by full canopy development. ▸ For **wine grapes**: Start with approximately 250 ℓ/ha at early shoot growth (shoots 10 – 25 cm), then increase with canopy development to reach about 1000 ℓ/ha by pea-berry stage, maintaining this volume for the remainder of the season.		

TOMATOES
 	
Early blight
(*Alternaria solani*)
	High Volume Application:
	35 mℓ/100 ℓ water
	
	Low Volume Application:
	350 mℓ/ha
	(mistblowers)
		▸ **Spray Volumes:**
		  ▸ High Volume Applications: 500 – 2000 ℓ/ha.
		  ▸ Low Volume Applications: Via mistblower.
		▸ Ensure full spray coverage at all times.
		▸ Start applications during the flowering stage (approximately 8 weeks after transplanting), or earlier if early blight symptoms develop.
		▸ Under low early blight pressure and where other diseases are not a concern, apply **DEFCON 250 EC** at 14-day intervals.
		▸ Under moderate to high early blight pressure, or where other diseases also require control, alternate applications of **DEFCON 250 EC** with a suitable registered broad-spectrum fungicide from a different FRAC group at 7-day intervals.
		▸ Continue the spray programme into the picking stage (approximately 16 – 20 weeks after transplanting).
		▸ Do not exceed eight (8) applications of **DEFCON 250 EC** per season.
		▸ During the pre-flowering stage and after **DEFCON 250 EC** applications have been discontinued, apply a suitable registered broad-spectrum fungicide.
		▸ **NOTE: DEFCON 250 EC is not effective against late blight** (*Phytophthora infestans*).

TREE NUTS **(Almonds, Cashews, Chestnuts, Macadamias, Pecans, Pistachios and Walnuts)** **Husk spot** (*Pseudocercospora* spp.)	**Ground Application:** 50 mℓ/100 ℓ water	‣ Integrate **DEFCON 250 EC** into a protective programme with fungicides containing different modes of action. ‣ Start applications at nut set and continue at three (3) to four (4)-week intervals. ‣ Do not apply more than two (2) applications per season. ‣ Ensure thorough spray coverage. ‣ For improved coverage, apply **DEFCON 250 EC** with a suitable registered non-ionic adjuvant/wetter containing polyether-polymethylsiloxane copolymer at the recommended label rate.

Consult the individual product labels for USE RESTRICTIONS, WARNINGS (including RESISTANCE WARNINGS), PRECAUTIONS and DIRECTIONS FOR USE if applied in a tank mixture with DEFCON 250 EC.

SA-DC-001

DefCon 250 EC

Wet Nr. 36 van 1947
SA Reg. Nr. L12032

'n Emulgeerbare konsentraat, sistemiese swamdoder vir die beheer van siektes op gewasse soos aangedui.

AKTIEWE BESTANDDEEL:
Difenokonasool (triasool) ..... 250 g/ℓ

GEREGISTREER DEUR:
ICA International Chemicals (Pty) Ltd Reg. Nr. 2001/013319/07
28 Plankenstraat • Plankenbrug Industrieël • Stellenbosch • 7600 • Suid-Afrika
Tel. +27-21 886 9812 • www.icaonline.co.za

WAARSKUWINGS

Veroorsaak velirritasie
Veroorsaak ernstige oogirritasie
Mag lugwegirritasie veroorsaak
Vermoede dat dit kanker veroorsaak
Baie giftig vir waterlewende organismes met langdurige gevolge

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

- *Aartappels* ..... *7 Dae*
- *Appels en Pere* ..... *14 Dae*
- *Bone* ..... *14 Dae*
- *Geelwortels.* ..... *7 Dae*
- *Grondbone (voer)* ..... *21 Dae*
- *Kanola* ..... *30 Dae*
- *Mielies en Suikermielies* ..... 14 Dae
- *Neutbome* ..... *45 Dae*
- *Sitrus* ..... *90 Dae*
- *Sojabone* ..... *18 Dae*
- *Tafel- en Wyndruiwe* ..... *28 Dae*
- *Tamaties* ..... *7 Dae*

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 gaan word, bestem is vir uitvoer, skakel met die betrokke invoerder of uitvoerliggaam rakende die gebruik van hierdie produk, die MRL en aanbevole onthoudingsperiodes. Alhoewel **DEFCON 250 EC** 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. **DEFCON 250 EC** moet eers op nuwe kultivars getoets word voordat dit oor groot areas aangewend word.

HERBETREDINGSINTERVAL: Moenie behandelde gebied binne 24 uur na toediening betree of alvorens die spuitneerslag droog is nie, tensy beskermende oorklere gedra word. Beskermende oorklere moet gewas word na gebruik.

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.

VOORSORGMAATREËLS

Indien mediese advies benodig word, hou die produkhouer of -etiket byderhand.
Hou buite bereik van kinders.
Lees sorgvuldig en volg alle instruksies.
Verkry, lees en volg alle veiligheidsinstruksies voor gebruik.
Vermy die inaseming van poeier/walm/gas/stuifsel/dampe/spuitstof.
Gebruik slegs buitenshuis of in 'n goed geventileerde area.
Vermy vrystelling in die omgewing.
Dra beskermende handskoene, beskermende klere, oog- en gesigbeskerming.
Was hande en blootgestelde vel deeglik na hantering. Moet nie aan oë raak nie.
INDIEN OP VEL: Was met baie seep en water.
INDIEN INGEASEM: Neem slagoffer na vars lug en hou gemaklik vir asemhaling.
INDIEN IN OË: Spoel versigtig met water vir etlike minute. Verwyder kontaklense indien aanwesig en maklik om te verwyder. Hou aan met spoel.
Indien blootgestel of besorg, verkry mediese advies.
Verkry mediese hulp indien jy ongesteld voel.
Vir spesifieke behandeling sien noodhulp instruksies op hierdie etiket.
Indien velirritasie ontstaan: Kry mediese hulp.
Indien oogirritasie voortduur: Kry mediese hulp.
Trek alle besoedelde klere uit en was dit voor hergebruik.

Maak stortsel bymekaar.
Berg in 'n goed geventileerde plek. Hou houer dig toe.
Berg agter slot en grendel.
Raak ontslae van inhoud en houer in ooreenstemming met nasionale regulasies.

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

RELEVANTE STOWWE:

Difenokonasool (Cas nr: 119446-68-3) Oogirritasie Kategorie 2, H319; Karsinogeen Kategorie 2, H351; Waterlewend Akuut Kategorie 1, H400; Waterlewend Kronies Kategorie 1, H410 (25 % m/v).
Propileenkarbonaat (Cas nr: 108-32-7) Oogirritasie Kategorie 2, H319 (<50 % m/v).
N,N-dimetyldekan-1-amied (Cas nr: 14433-76-2) Velirritasie Kategorie 2, H315; Oogirritasie Kategorie 2, H319; Giftig vir Spesifieke Teikenorgane, Eenmalige Blootstelling Kategorie 3, H335 (< 30 % m/v).

NOODHULPBEHANDELING

In geval van 'n ongeluk of as jy onwel voel, verkry onmiddellik mediese advies en wys hierdie ETIKET waar moontlik

INASEMING:	• 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. • MOENIE 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 toegerus met 'n eenrigtingklep of ander geskikte mediese asemhalingtoestel. • Dien suurstof toe as die slagoffer se asemhaling moeilik of onreëlmatig is. Kry mediese hulp.
VEL:	• Verwyder en isoleer besmette klere, skoene en leergoedere dadelik en stort. • Spoel aangetaste areas (vel) dadelik met nieskurende seep of sagwerkende wasmiddel en groot hoeveelhede lopende water. Was besmette klere voor hergebruik. • Kry mediese hulp indien irritasie ontwikkel en voortduur.
OË:	• Spoel oë ONMIDDELLIK 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, MOENIE vomering induseer nie, tensy 'n gifsentrum of dokter opdrag gee om dit te doen. • Laat die persoon slukkies water neem indien dit moontlik is om te sluk. Moet nooit iets per mond aan 'n bewustelose persoon gee nie. Indien die persoon wel vomeer, hou aan om vloeistowwe te gee. Verkry mediese noodhulp.
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, AKUUT EN VERTRAAGD:	• 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: DEFCON 250 EC is 'n FRAC* groepkode **(3)** swamdoder. Enige populasie van 'n spesifieke swam mag individue insluit wat 'n natuurlike weerstand teen **DEFCON 250 EC** of enige ander groepkode **(3)** swamdoders het. Indien hierdie swamdoders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die swampopulasie oorheers. Hierdie weerstandbiedende swamme sal waarskynlik nie deur **DEFCON 250 EC** of enige ander groepkode **(3)** swamdoders beheer word nie.

Om weerstand te voorkom of te vertraag:

- Vermy die herhaaldelike gebruik van swamdoders met dieselfde swamdoder groepkode. Wissel af met, of gebruik tenkmengsels van produkte in verskillende swamdoder groepkodes.
- Raadpleeg toepaslike individuele produketikette wanneer daar afgewissel word, of tenkmengsels gemaak word, met produkte in ander swamdoder groepkodes.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in swamdoder programme.
- Waar weerstand bekend is of vermoed word, moet **DEFCON 250 EC** nie alleen toegedien word nie, maar in kombinasie met swamdoders van 'n ander swamdoder groep kode. Hierdie bestuurstrategie om weerstand te voorkom, moet egter nie swamdoder produkte insluit waar weerstand in die verlede aangemeld is nie, of dieselfde werkswyse het nie.
- Om die effektiwiteit van **DEFCON 250 EC** te handhaaf, is dit belangrik om die ontwikkeling van siekteweerstand teen groep (**3**) swamdoders te voorkom.

Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk of jou plaaslike verskaffer.

*FRAC – Fungicide Resistance Action Committee. Besoek die FRAC webtuiste by https://www.frac.info/ vir meer inligting.

WERKINGSWYSE

Difenokonasool is 'n sistemiese triasool swamdoder wat aan die sterolbiosintese-inhibeerders (FRAC groepkode 3) behoort. Dit werk deur C14-demetielase, 'n noodsaaklike ensiem in die ergosterolbiosinteseweg, te inhibeer. Die ontwrigting van ergosterolproduksie belemmer die vorming van die swamselmembraan en inhibeer sodoende die groei en ontwikkeling van die patogeen. Na toediening word difenokonasool deur die blare geabsorbeer en toon dit plaaslike sistemiese en translaminêre beweging, met beperkte akropetale translokasie in die xileem. Hierdie eienskappe maak beide voorkomende en kuratiewe werking teen 'n breë spektrum van swamsiektes by plante moontlik.

GEBRUIKSBEPERKINGS

- Dien **DEFCON 250 EC** voorkomend of met die aanvang van siekteontwikkeling toe, soos aangedui in die toedieningstabel.

- Gebruik slegs die aanbevole dosisse soos op die etiket aangedui, MOENIE die aanbevole dosisse verlaag nie.
- **DEFCON 250 EC** moet as ’n voldekbespuiting aangewend word, tensy anders aangedui.
- Wanneer ’n tenkmengsel gebruik word, of met ander swamdoders gewissel word, gebruik slegs geregistreerde produkte wat voldoende siektebeheer verskaf wanneer dit alleen teen die aanbevole dosis toegedien word.
- Die opname en sistemiese werking van **DEFCON 250 EC** kan nadelig beïnvloed word wanneer gewasse aan toestande van stres onderwerp word, insluitend voedingstof- en droogteverwante stres. Toedienings moet dus vermy word terwyl gewasse sodanige toestande ondervind.
- MOENIE **DEFCON 250 EC** toedien indien reën binne twee (2) ure na toediening verwag word nie.

GEBRUIKSAANWYSINGS – gebruik slegs soos aangedui

VERENIGBAARHEID:

DEFCON 250 EC is verenigbaar met die meeste swamdoders, insekdoders en mytdoders. Die verenigbaarheid van **DEFCON 250 EC** met ander produkte hang af van die formulasie van die verskeie produkte sowel as die kwaliteit van die spuitwater wat gebruik gaan word. Aangesien die formulasies van ander produkte van tyd tot tyd sonder ons wete kan verander, en die kwaliteit van die spuitwater tussen produksie eenhede ook kan verskil, word dit aanbeveel dat ’n kleinskaalse fisiese verenigbaarheidstoets voor die opmaak van ’n tenkmengsel uitgevoer moet word. Raadpleeg altyd die etikette van die produkte wat met **DEFCON 250 EC** in ’n tenkmengsel gemeng word.

MENGINSTRUKSIES:

Vul die spuittenk met skoon water tot halfvol. Meet die hoeveelheid **DEFCON 250 EC** wat benodig word af, en meng dit vooraf met minstens 10 ℓ water. Meng enige ander produkte wat in die tenkmengsel moet kom afsonderlik en op dieselfde wyse as laasgenoemde. Let op die volgende mengvolgorde van die formulasies indien ander produkte saam met **DEFCON 250 EC** in ’n tenkmengsel toegedien word: Buffer/versuurder, benatbare poeiers, waterdispergeerbare korrels, suspensie konsentrate, emulgeerbare konsentrate en oplosbare konsentrate laaste. Voeg produkte wat in wateroplosbare materiaal verpak is eerste by en **DEFCON 250 EC** daarna. Vul spuittenk met skoon water tot by finale volume terwyl dit voortdurend gemeng word. MOENIE toelaat dat die mengsel uitsak nie. **DIE TENKMENGSEL MOET ONMIDDELLIK UITGESPUIT WORD EN NIE TOEGELAAT WORD OM OORNAG IN DIE SPUITTENK TE STAAN NIE.** Spuittoerusting moet deeglik uitgespuit/skoongemaak word na afloop van toediening. Plaas die prop onmiddellik na gebruik terug op die produkhouer.

MAAK SPUITTOERUSTING ONMIDDELLIK NA GEBRUIK SKOON: Spesiale aandag en versorging moet tydens die skoonmaak van alle toerusting wat in die meng- en toedieningsproses van **DEFCON 250 EC** gebruik is, toegepas word om skade aan ander gewasse te voorkom.

GRONDTOEDIENING:

- **DEFCON 250 EC** kan met ’n konvensionele hoë volume spuitapparaat toegedien word. Die spuitpunte moet met holkeëlspuitkoppe toegerus word wat medium tot fyn druppels verseker.
- Vir **rygewasse**, dien **DEFCON 250 EC** in ’n spuitmengselvolume van 300 – 500 ℓ per ha toe.
- 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. Moenie dat die toedienings oorvleuel nie, aangesien dit gewasse kan beskadig.
- Verseker deeglike bedekking van die hele plant (insluitend die stele en blare) deur genoegsame watervolumes en toepaslike spuittoerusting te gebruik.
- Aangesien **DEFCON 250 EC** nie teen ’n verlaagde spuitvolume geëvalueer is nie, kan die registrasiehouer nie die effektiwiteit waarborg of verantwoordelik gehou word vir enige nadelige gevolge indien hierdie produk teen ’n laer spuitvolume as wat aanbeveel word, toegedien word nie.
- Moenie **DEFCON 250 EC** toedien indien reën binne twee (2) ure na toediening verwag word nie.
- Vermy drywing na ander gewasse, weiding, riviere, damme en ander nie-teiken areas.

LUGTOEDIENING:

VERMY SPUITSTOF WEGDRYWING TEN ALLE TYE

Lugtoediening van **DEFCON 250 EC** 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 **DEFCON 250 EC** 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 (cm^2) 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. Moenie 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 sal produseer, maar die minste verlies van produk verseker.
- 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.

METEOROLOGIESE TOESTANDE:

- Die verskil in temperatuur tussen die nat- en droë-boltermometer van ’n swaaihigrometer, moenie 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 uitgevoer word waar sensitiewe gewasse, gewassaailinge of bladwisselende vrugtebome, bv. appels in bot- of vroeë ontwikkelingstadiums, binne 5 km vanaf die naaste bespuitingsroete van die vliegtuig voorkom 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 plaagdoder 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.
- Moenie **DEFCON 250 EC** toedien indien reën binne twee (2) ure na toediening verwag word nie.

TOEDIENINGSTABEL		
GEWAS en SIEKTE	**DOSIS**	**AANBEVELINGS**
AARTAPPELS **Vroeë roes** (*Alternaria solani*)	**Grond- en Lugtoediening:** 350 mℓ – 500 mℓ/ha	▸ Dien **DEFCON 250 EC** as deel van 'n voorkomende spuitprogram teen 7 – 14 dae spuitintervalle toe. ▸ Begin die spuitprogram voor blom, of vroeër indien Alternaria-simptome waargeneem word. ▸ Gaan voort met toedienings tot natuurlike afsterwing ("*senescence*") van die gewas plaasvind. ▸ Gebruik die hoër dosis wanneer toestande gunstig is vir siekteontwikkeling. ▸ Moenie meer as twee (2) opeenvolgende **DEFCON 250 EC** toedienings aanwend voordat daar met 'n swamdoder vanuit 'n ander FRAC groep afgewissel word nie. ▸ Vir grondtoediening: Dien toe in ongeveer 500 ℓ water/ha om voldoende bedekking te verseker. ▸ Vir meer doeltreffende bedekking, dien **DEFCON 250 EC** saam met 'n geskikte geregistreerde poliëter-polimetielsiloksaan-kopolimeer nie-ioniese byvoegingsmiddel/benatter, teen die aanbevole etiketdosis toe.
APPELS & PERE **Skurf** (*Venturia inaequalis*)	**Hoë Volume Toediening per 100 ℓ water:** 6 mℓ **DEFCON 250 EC** PLUS 100 mℓ captab 500 SC OF 75 g mancozeb 75 WG GEVOLG DEUR 45 mℓ dithianon 500 SC	▸ Dien **DEFCON 250 EC** + captab 500 SC of mancozeb 75 WG, gevolg deur dithianon 500 SC, in 'n voorkomende spuitprogram toe. Dien as 'n voldekbespuiting tot afloop toe, of as 'n lae-volume aanwending met minstens 'n ¼ van die watervolume. ▸ Wanneer 'n voorkomende kontak-swamdoder spuitprogram gevolg word, kan **DEFCON 250 E**C as 'n kuratiewe behandeling binne vier (4) dae na die begin van 'n infeksieperiode toegedien word. Dien in sulke gevalle 10 mℓ **DEFCON 250 EC** + 100 mℓ captab 500 SC of 75 g mancozeb 75 WG per 100 ℓ water toe. ▸ Captab en mancozeb kan vervang word met ander kontak swamdoders. ▸ Kuratiewe toedienings moet slegs gemaak word indien 'n betroubare siektevoorspelling-sisteem in plek is. ▸ **Spuitintervalle volgens ontwikkelingsstadia:** • Vanaf groenpunt tot voor-blom: Elke 7 dae. • Na-blom: Elke 10 – 14 dae. • Gaan daarna voort met dithianon 500 SC teen 45 mℓ/100 ℓ water en in 14-dae intervalle • Verander na 'n voorkomende kontak-swamdoder spuitprogram in Desember. ▸ **<u>Weerstandsbestuur</u>**: Moenie meer as vier (4) **DEFCON 250 EC** toedienings per seisoen oorskry nie.

Water volume (ℓ) per hektaar (ha) benodig vir voldekbespuiting volgens boomryvolume (BRV) berekening:

Boomhoogte en -deursnee moet in die somer gemeet word wanneer bome vol blaar is. Gebruik die water volume per hektaar om die vereiste hoeveelheid **DEFCON 250 EC** per hektaar, afhangende van die verskeie groeistadiums, te bereken. Dit is belangrik dat die korrekte hoeveelheid **DEFCON 250 EC** per hektaar toegedien word.

- **<u>BRV</u>** <u>(Vanaf groenpunt tot ± 30 % blom)</u>
  ℓ water/ha = [(Boomhoogte X Boomdeursnit X 937)/Rywydte] X 60 %
- **<u>BRV</u>** <u>(Vanaf ± volblom tot ± mid November (middel seisoen))</u>
  ℓ water/ha = [(Boomhoogte X Boomdeursnit X 937)/Rywydte] X 80 %
- **<u>BRV</u>** <u>(Vanaf ± begin van Desember)</u>
  ℓ water/ha = [(Boomhoogte X Boomdeursnit X 937)/Rywydte] X 100 %

BONE **Bruinroes** (*Uromyces appendiculatus*)	**Grondtoediening:** 250 mℓ/ha elke 10 – 14 dae OF 325 mℓ/ha elke 18 – 21 dae (droë bone) **Lugtoediening:** 300 mℓ/ha elke 10 – 14 dae (droë bone)	▸ Dien **DEFCON 250 EC** as deel van ’n voorkomende spuitprogram toe. ▸ Begin toedienings aan die begin van blom, of vroeër vir hoogs vatbare kultivars, of sodra aanvanklike siektesimptome waargeneem word. ▸ Gaan voort met toedienings tydens aktiewe groei totdat die gewas natuurlike afsterwing (“*senescence*”) nader. ▸ Verseker deeglike bedekking ten alle tye. ▸ Vir meer doeltreffende bedekking, dien **DEFCON 250 EC** saam met ’n geskikte geregistreerde poliëter-polimetielsiloksaan-kopolimeer nie-ioniese byvoegingsmiddel/benatter, teen die aanbevole etiketdosis toe.
GEELWORTELS **Blaarskroei** (*Alternaria dauci* & *Cercospora carotae*)	**Grondtoediening:** 300 mℓ/ha OF 500 mℓ/ha	▸ Dien **DEFCON 250 EC** as deel van ’n voorkomende spuitprogram toe, voor die aanvang van siekteontwikkeling. ▸ Beperk Groep 3 swamdodertoedienings tot tydperke wanneer toestande gunstig is vir siekteontwikkeling. ▸ Gebruik die laer dosis met 7-dae intervalle. ▸ Gebruik die hoër dosis met 10 – 14-dae intervalle wanneer siektedruk hoog is. ▸ Moenie meer as twee (2) opeenvolgende **DEFCON 250 EC** toedienings aanwend voordat daar met ’n swamdoder vanuit ’n ander FRAC groep afgewissel word, of ’n tenkmengsel daarmee toegedien word nie. ▸ Moenie meer as ses (6) **DEFCON 250 EC** toedienings per seisoen oorskry nie. ▸ Die vermindering van inokulum deur gewassanitêre praktyke, byvoorbeeld die verwydering van opslagplante, wisselbou, die inploeg, diep begrawe, of verwydering en kompostering van gewasreste na oes, sal bydra tot siektebeheer.
GRONDBONE **Vroeë blaarvlek** (*Cercospora arachidicola*)	**Grondtoediening (droëland):** 300 mℓ/ha GEVOLG DEUR 200 mℓ/ha elke 10 – 14 dae OF 325 mℓ/ha elke 18 – 21 dae **Grondtoediening (besproeiing):** 300 mℓ/ha elke 10 – 14 dae OF 400 mℓ/ha elke 18 – 21 dae **Lugtoediening:** 350 mℓ/ha elke 14 – 21 dae (droëland) OF elke 10 – 14 dae (besproeiing)	▸ Dien **DEFCON 250 EC** as deel van ’n voorkomende spuitprogram toe. ▸ Begin **DEFCON 250 EC** toedienings aan die begin van blom (ongeveer 10 – 12 weke na plant), of vroeër indien siekteontwikkeling voorkom. ▸ Gaan voort met alle spuitprogramme totdat die plante natuurlik begin afsterf. ▸ Vir meer doeltreffende bedekking, dien **DEFCON 250 EC** saam met ’n geskikte geregistreerde poliëter-polimetielsiloksaan-kopolimeer nie-ioniese byvoegingsmiddel/benatter, teen die aanbevole etiketdosis toe. ▸ Lugtoediening van **DEFCON 250 EC** moet slegs as ’n noodmaatreël oorweeg word wanneer toestande ongunstig vir grondtoediening is.
KANOLA **Stamkanker (sin. Swartstam)** (*Leptosphaeria maculans* Anam. *Phoma lingam*)	**Grondtoediening:** 500 mℓ/ha	▸ Dien **DEFCON 250 EC** as deel van ’n voorkomende spuitprogram toe. ▸ Vir **stamkanker (swartstam)**: Dien toe na die 4-blaarstadium, sodra siektesimptome waargeneem word. ▸ ’n Opvolgtoediening mag nodig wees indien simptome weer voorkom. ▸ Moenie meer as twee (2) **DEFCON 250 EC** toedienings per seisoen oorskry nie.
MIELIES EN SUIKERMIELIES **Grysblaarvlek** (*Cercospora zeae-maydis*)	**Grondtoediening:** 300 mℓ/ha	▸ Begin **DEFCON 250 EC** toedienings sodra siekte op die onderste blare waargeneem word, maar voordat meer as 2 % van die totale blaaroppervlak besmet is en voordat die drie blare onder die kop simptome wys. ▸ ’n Opvolgtoediening mag nodig wees 14 – 21 dae later.
Noordelike blaarskroei (*Exserohilum turcicum*)		▸ Begin **DEFCON 250 EC** toedienings met die eerste tekens van siekte. ▸ Toedienings moet begin voordat meer as 2 % van die totale blaaroppervlak besmet is. ▸ Dien ’n opvolgtoediening 14 – 21 dae later toe.

WAARSKUWING:

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 (10de blaar tot pluim verskyning) stadiums toegedien word. Toedienings tussen die V10 – VT groeistadiums van die gewas moet sover moontlik vermy word.

NEUTBOME **(Amandels, Kasjoeneute, Kastaiings, Makadamias, Pekanneute, Pistachios en Okkerneute)** **Vrughulselvlek** (*Pseudocercospora* spp.)	**Grondtoediening:** 50 mℓ/100 ℓ water	▸ Dien **DEFCON 250 EC** in ’n voorkomende spuitprogram toe saam met swamdoders van verskillende FRAC groepkodes. ▸ Begin toedienings met die aanvang van neutset en gaan voort met drie (3) – vier (4) weke intervalle. ▸ Moenie meer as twee (2) **DEFCON 250 EC** toedienings per seisoen oorskry nie. ▸ Verseker deeglike bedekking. ▸ Vir meer doeltreffende bedekking, dien **DEFCON 250 EC** saam met ’n geskikte geregistreerde poliëter-polimetielsiloksaan-kopolimeer nie-ioniese byvoegingsmiddel/benatter, teen die aanbevole etiketdosis toe.
SIERPLANTE (ORNAMENTELE) (insluitend Angeliere, Gladiolus, Hypericum-blomme, Irisse en Rose) **Blaarvlek** (*Mycosphaerella* spp.)	**Grondtoediening:** 500 mℓ/ha	▸ Begin **DEFCON 250 EC** toedienings sodra die eerste simptome waargeneem word, of wanneer toestande gunstig is vir siekteontwikkeling. ▸ Herhaal toedienings met 7 – 14-dae intervalle. ▸ Gebruik die korter spuitinterval onder toestande van hoë siektedruk.

SITRUS
Nawels, Clementines en Mandaryne
 	
Nawel-endverrotting / Swartkernverrotting
(*Alternaria citri*)
	Grondtoediening:
	40 – 60 mℓ/100 ℓ water
		▸ Dien twee (2) aanwendings toe:
		  ▸ Eerste toediening met 50 % blomblaarval.
		  ▸ Tweede (en finale) toediening met 100 % blomblaarval.
		▸ Dien toe as ’n medium dekbespuiting, met ongeveer 20 ℓ spuitmengsel per boom, afhangende van boomgrootte en blaardigtheid.
		▸ Gebruik die hoër dosis in areas en boorde met ‘n geskiedenis van Alternaria-siektes.
		▸ **Seisoenale limiet:** Die totale hoeveelheid **DEFCON 250 EC** toedienings moenie 3 ℓ/ha per seisoen oorskry nie. Die laaste toediening moet plaasvind met 100 % blomblaarval.
		▸ Dien twee (2) **DefCon 250 EC** toedienings toe as deel van ‘n seisoenlange spuitprogram vir die beheer van Alternaria-bruinvlek (*Alternaria alternata*), tesame met swamdoders uit ander FRAC groepe.

Bruinvlek (*Alternaria alternata*)	**Grondtoediening:** 40 – 60 mℓ/100 ℓ water PLUS 200 g/100 ℓ water mancozeb 80 WP	
SOJABONE **Sojaboonroes** (*Phakopsora pachyrhizi*)	**Grondtoediening:** 325 mℓ/ha	▸ Dien **DEFCON 250 EC** voorkomend toe, of sodra die eerste siektesimptome waargeneem word. Dien ’n tweede bespuiting 14 – 21 dae later toe. ▸ Gebruik die korter interval wanneer toestande gunstig is vir siekteontwikkeling (15 – 28 °C met hoë humiditeit). ▸ Indien siekteontwikkeling tydens blom of vroeë peulvul plaasvind, mag ’n addisionele toediening nodig wees. ▸ Indien infeksie laat in die seisoen plaasvind sal ‘n enkele bespuiting voldoende wees. ▸ Dit is noodsaaklik om deeglike bedekking te verseker.
TAFEL- EN WYNDRUIWE **Poeieragtige meeldou** (*Erysiphe necator* (voorheen *Uncinula necator*) Anam. *Oidium tuckerii)*	**Grondtoediening:** 12 mℓ/100 ℓ water	▸ Dien **DEFCON 250 EC** voorkomend as deel van ’n spuitprogram saam met swamdoders van verskillende FRAC groepe toe, in ’n voldektoediening wat deeglike bedekking tot die punt van afloop verseker. ▸ Begin toedienings wanneer lote 100 – 250 mm in lengte is. ▸ Herhaal toedienings met 14-dae intervalle en moenie die gespesifiseerde spuitinterval oorskry nie. ▸ Moenie **DEFCON 250 EC** toedien nadat die trosse toe maak nie. ▸ Moenie meer as vier (4) toedienings per seisoen oorskry nie. ▸ Verseker deeglike en uniforme bedekking van loof- en vrugsones regdeur die spuitprogram.

WATER VOLUME BENODIG VIR HOË VOLUME AANWENDING:

- Vir **tafeldruiwe**: Begin met ongeveer 500 ℓ/ha tydens vroeë lootgroei (lote 10 – 25 cm) en verhoog geleidelik soos die blaredak uitbrei tot ongeveer 1200 ℓ/ha wanneer volle blaredakontwikkeling bereik word.
- Vir **wyndruiwe**: Begin met ongeveer 250 ℓ/ha tydens vroeë lootgroei (lote 10 – 25 cm) en verhoog die spuitvolume namate die blaredak ontwikkel tot ongeveer 1000 ℓ/ha teen die ertjiekorrelstadium. Handhaaf hierdie spuitvolume vir die res van die seisoen.

TAMATIES
 	
Vroeë roes
(*Alternaria solani*)
	Hoë Volume Toediening:
	35 mℓ/100 ℓ water
	
	Lae Volume Toediening:
	350 mℓ/ha
	(newelblasers)
		▸ **Spuit Volumes:**
		  ▸ Hoë Volume Toedienings: 500 – 2000 ℓ/ha.
		  ▸ Lae Volume Toedienings: Via newelblaser.
		▸ Verseker deeglike bedekking ten alle tye.
		▸ Begin toedienings gedurende die blomstadium (ongeveer 8 weke na uitplant), of vroeër indien simptome van vroeë roes ontwikkel.
		▸ Onder toestande van lae vroeë roes-siektedruk en waar ander siektes nie van belang is nie, dien **DEFCON 250 EC** met 14-dae intervalle toe.
		▸ Onder toestande van matige tot hoë vroeë roes-siektedruk, of waar ander siektes ook beheer vereis, wissel **DEFCON 250 EC** toedienings met ’n geskikte geregistreerde breëspektrum swamdoder vanuit ’n ander FRAC groepkode af, teen 7-dae intervalle.
		▸ Gaan voort met die spuitprogram tot in die plukstadium (ongeveer 16 – 20 weke na uitplant).
		▸ Moenie meer as agt (8) toedienings van **DEFCON 250 EC** per seisoen oorskry nie.
		▸ Dien ’n geskikte geregistreerde breëspektrum swamdoder gedurende die voor-blomstadium, asook nadat **DEFCON 250 EC** toedienings gestaak is, toe.
		▸ **LET WEL: DEFCON 250 EC is nie effektief teen laatroes** (*Phytophthora infestans*) **nie.**

Raadpleeg die betrokke etikette vir GEBRUIKSBEPERKINGS, WAARSKUWINGS (insluitend WEERSTANDSWAARSKUWING), VOORSORGMAATREËLS en GEBRUIKSAANWYSINGS indien dit saam met DEFCON 250 EC in ’n tenkmengsel toegedien word.

SA-DC-001