



# ORIUS 250 EW

Reg. no. L6832 Act/Wet 36 of/van 1947

An emulsion oil in water systemic fungicide for the control of diseases in the crops indicated.

'n Emulsie olie-in-water sistemiese swamdoder vir die beheer van siektes in gewasse soos aangedui.

**FRAC FUNGICIDE GROUP CODE**

**3**

**FRAC SWAMDODERGROEPKODE**

## ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

Tebuconazole (triazole) ..... 250 g/L ..... Tebukonasool (triasool)

## NET VOLUME/NETTO VOLUME

..... L

## REGISTRATION HOLDER/REGISTRASIEHOUER

ADAMA South Africa (Pty.) Ltd.

Reg. no. 1992/001741/07

Ground Floor, Simeka House

The Vineyards Office Estate, 99 Jip de Jager Drive  
Bellville, 7530

T: +27 21 982 1460 F: +27 21 982 5810

infocpt@adama.com

ORIUS is a trademark of a company of the ADAMA GROUP.  
ORIUS is 'n handelsmerk van 'n maatskappy van die ADAMA GROEP.

## CONTACT IN EMERGENCY/KONTAK IN NOOD

Grieffon Poison Information Centre: +27 82 446 8946

Tygerberg Poison Information Centre: +27 861 555 777

Batch number .....  
Date of Manufacture .....

Lotnommer .....  
Datum van Vervaardiging .....

UN no.: 3082



## **WARNINGS**

**Withholding periods (minimum number of days between last application and harvest):**

<b>Barley, wheat</b> (harvest, grazing and feeding) .....	77 days
<b>Beans, potatoes</b> (harvest) .....	14 days
<b>Citrus</b> .....	175 days
<b>Groundnut, bean hay</b> (feeding) .....	42 days
<b>Oats</b> (harvest, grazing and feeding) .....	56 days
<b>Peas, tomatoes</b> (harvest) .....	7 days

- Harmful if swallowed, inhaled or absorbed through the skin.
- Irritating to skin and eyes.
- Toxic to fish.
- Store in a cool, dry place away from food, feed and other agricultural chemicals.
- Keep out of reach of children, uninformed persons and animals.
- **Re-entry interval:** Do not enter treated field until spray deposit has dried unless wearing protective clothing.
- **Aerial application:** Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not spray over water or areas not under treatment or allow the spray drift to contaminate these 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 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, the environment, or harm to humans or animals 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**

- Do not eat drink or smoke whilst handling this product.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Wear rubber gloves and 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.
- While spraying, avoid contact with the spray as much as you can. 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.

- 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.
- Change and wash your work clothes. Wash yourself.

## **RESISTANCE WARNING**

For resistance management, **ORIUS 250 EW** is a group code 3 fungicide. Any fungus population may contain individuals naturally resistant to **ORIUS 250 EW** and other group code 3 fungicide. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **ORIUS 250 EW** or any other group code 3 fungicide. To delay fungicide resistance:

- Avoid exclusive repeated use of fungicide from the same fungicide group code. Alternate or tank mix with products from different fungicide group codes,
- For tank mixing or alternation with products in other fungicide group codes, refer to applicable individual product labels.
- Integrate the control methods (chemical, cultural, biological) into disease control programmes.

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

## **DIRECTIONS FOR USE**

**Use only as indicated.**

### **Compatibility**

The compatibility of **ORIUS 250 EW** with other products can be influenced by the formulation of those products and the quality of the dilution water. As formulations of products can change without the knowledge of ADAMA South Africa (Pty.) Ltd. and the quality of water can differ from farm to farm, a physical compatibility test should always be carried out prior to application. **ORIUS 250 EW** is compatible with RIMON® 10 EC (Reg. No. L 6285) and other non-alkaline agricultural chemicals.

### **Mixing instructions**

Half fill the spray tank with water. Add the required volume of **ORIUS 250 EW** while agitating. Fill the spray tank with water. It is important to note that during the filling and application process, the spray-mixture must be agitated continuously.

## **APPLICATION**

### **Ground application**

**ORIUS 250 EW** can be applied by any conventional high volume sprayer which is fitted with an efficient agitation system. The boom must be fitted with hollow cone nozzles which are able to deliver medium to fine droplets. The applicator must be calibrated correctly to deliver an even distribution of the spray-mixture over the target area.

### **Aerial application**

Aerial application of **ORIUS 250 EW** may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Pesticides). 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:

- Volume: A spray mixture volume of 30 L/ha is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
- Droplet coverage: 25–35 droplets/cm<sup>2</sup> must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 280–300 micron is recommended. Limit the production of fine droplets less than 150 micron (high drift and evaporation potential) to a minimum.
- Flying height: Maintain the height of the spray boom at 3–4 m above the target. Do not spray when aircraft is diving, climbing or when banking
- Use suitable atomising equipment that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomisers within the inner 60-75 % of the wingspan to prevent droplets from entering the wingtip vortices.
- 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.
- Stop spraying under turbulent, unstable and dry conditions during the heat of the day.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following:
  - a) reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage), and
  - b) damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- Ensure that the Aerial Spray Operator knows exactly which fields to spray.
- Obtain an assurance from the Aerial Spray Operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

## APPLICATION RATES

CROP AND TARGET	DOSAGE/HA (or as indicated)	REMARKS
<b>Barley</b>		
<b>Eye spot</b> ( <i>Pseudocercosporaella herpotrichoides</i> )	<b>Ground application</b> 750 ml	Apply in 300 L water/ha between the seven leaf and flag leaf stage.
	<b>Aerial application</b> 900 ml	Apply as above in at least 30 L water/ha.
<b>Halo spot</b> ( <i>Selenophoma donacis</i> )	<b>Ground application</b> 750 ml	Apply in 300 L water/ha as soon as symptoms of the disease are noticed; especially from the flag leaf to ear emergence stage. If infection levels are high a second application may be necessary 21–28 days later.
<b>Net Blotch</b> ( <i>Pyrenophora teres</i> ) ( <i>Helminthosporium</i> spp.)	<b>Aerial application</b> 900 ml	Apply as above in at least 30 L water/ha.
<b>Leaf spot</b> ( <i>Rhyncosporium secalis</i> )	<b>Ground application</b> 500 ml	Apply in 300 L water/ha when first symptoms are noticed or in the period between the seven leaf and flag leaf stages.
	<b>Aerial application</b> 500 ml	Apply as above in at least 30 L water/ha.
<b>Leaf rust</b> ( <i>Puccinia hordei</i> )	<b>Ground application</b> 750 ml	Apply in 300 L water/ha as soon as symptoms are noticed. Repeat application 28 days later should symptoms re-appear.
	<b>Aerial application</b> 750 ml	Apply as above in at least 30 L water/ha.
<b>Powdery mildew</b> ( <i>Erysiphe graminis</i> )	<b>Ground application</b> 750 ml	Apply in 300 L water/ha as soon as symptoms are noticed. Repeat application 28 days later should symptoms re-appear.
	<b>Aerial application</b> 900 ml	Apply as above in at least 30 L water/ha.
<b>Beans</b> (Dry and green beans)	<b>Ground application</b> 500 ml	Apply as a full cover spray in 500 L water / ha as a preventive spray or as soon as the first symptoms are noticed. Repeat application every 10–12 days especially if weather conditions favour the development of the disease.
<b>Rust</b> ( <i>Uromyces appendiculatus</i> )	<b>Aerial application</b> 600 ml	Apply as above in at least 30 L water/ha.

CROP AND TARGET	DOSAGE/HA (or as indicated)	REMARKS
<b>Citrus</b> <b>Nnavels, Clementines and Minneola tangelos</b> <b>Navel-end rot (black core rot)</b> ( <i>Alternaria citri</i> )	80 ml/100 L water	Apply two applications starting at 50 % petal fall and follow up at 100 % petal fall. Apply as a medium cover spray (about 20 L spray mixture per tree, depending on tree size).  <b>Note:</b> Uneven flowering over an extended period of time <b>will</b> result in reduced efficacy. Due to the characteristics of the disease and the effect of unpredictable weather conditions, control may be variable and may not meet the standard required for export fruit.
<b>Groundnuts</b> <b>Early leafspot</b> ( <i>Cercospora arachidicola</i> ) <b>Late leafspot</b> ( <i>Cercosporidium personatum</i> ) <b>Web blotch</b> ( <i>Phoma arachidicola</i> ) <b>Rust</b> ( <i>Puccinia arachidis</i> )	<b>Ground application</b> <b>Dry land:</b> 400 ml <b>Irrigation:</b> 600 ml  <b>Aerial application</b> <b>Dry land:</b> 500 ml <b>Irrigation:</b> 750 ml	Apply as a preventive treatment or as soon as the first symptoms are noticed. Apply in 400–500 L water/ha and direct the spray onto the row. It is recommended that a suitable wetter/sticker should be added to the spray-mixture to ensure thorough wetting of all plant parts. Repeat application every 10–14 days but do not exceed 4 sprays per season.  Apply as above in at least 30 L, but preferably 40 L water/ha.
<b>Mangoes</b> <b>Powdery mildew</b> ( <i>Oidium mangiferae</i> )	20 ml/100 L water	Apply as soon as first symptoms are noticed. Repeat every 10–14 days up to 100 % petal drop. Infection usually starts when 50 % of the flowers are open. Apply as a full cover spray and ensure that the flower panicles are fully covered.  <b>Note:</b> Uneven flowering over an extended period of time <b>will</b> result in reduced efficacy. Due to the characteristics of the disease and the effect of unpredictable weather conditions, control may be variable and may not meet the standard required for export fruit.
<b>Oats</b> <b>Crown rust</b> ( <i>Puccinia coronata</i> )	<b>Ground application</b> 500 ml  <b>Aerial application</b> 500 ml	Apply in at least 300 L water/ha as soon as symptoms are noticed.  Apply as above in at least 30 L water/ha.

CROP AND TARGET	DOSAGE/HA (or as indicated)	REMARKS
<b>Onions</b> <b>Purple blotch</b> ( <i>Alternaria porri</i> )	150 ml/100 L water	Apply at 500 L spray mixture/ha as soon as the first symptoms are noticed. Repeat every 7–14 days depending on the severity of the infection. Do not exceed a total of 4 applications per season. A suitable wetter/sticker must be used to ensure thorough coverage of the leaves and to minimize excessive run-off. Do not apply in spring onions.
<b>Peas</b> <b>Powdery mildew</b> ( <i>Erysiphe pisi</i> )	<b>Ground application</b> 50 ml/100 L water	Apply as soon as the first symptoms of the disease are noticed and repeat every 10–14 days. Use a suitable wetter to ensure an even distribution and penetration of <b>ORIUS 250 EW</b> . Apply at least 500 L spray mixture/ha. Do not exceed 3 applications per season.
	<b>Aerial application</b> 300 ml	Apply as above in at least 30 L, but preferably 40 L water/ha.
<b>Potatoes</b> <b>Early blight</b> ( <i>Alternaria solani</i> )	<b>Ground application:</b> 75 ml/100 L water	Apply <b>ORIUS 250 EW</b> as a preventive treatment when weather conditions are favorable for the development of the disease (warm, humid conditions). Apply at least 500 L spray mixture/ha. Do not apply less than 375 ml <b>ORIUS 250 EW</b> /ha. Repeat application every 7–10 days, but do not exceed 4 applications/season.
	<b>Aerial application</b> 500–750 ml	Apply as above in at least 30 L but preferably 40 L water/ha. Use the higher dosage rate from flowering stage onwards when the foliage is denser or when weather conditions are favorable for the development of the disease.
<b>Tomatoes</b> <b>Early blight</b> ( <i>Alternaria solani</i> )	75 ml/100 L water	Depending on plant height and density of foliage, apply 5–12 L spray mixture/100 m row length as soon as the first symptoms are noticed. Ensure thorough coverage of the foliage. Depending on weather conditions, the treatment must be repeated every 7–10 days. A total of 4 applications/land/season must not be exceeded. <b>ORIUS 250 EW</b> must preferably be alternated with a non-DMI fungicide. It is important to note that <b>ORIUS 250 EW</b> only controls early blight in tomatoes.

CROP AND TARGET	DOSAGE/HA (or as indicated)	REMARKS
<b>Wheat</b>		
<b>Eye spot</b> ( <i>Pseudocercosporaella herpotrichoides</i> )	<b>Ground application</b> 750 ml	Apply in 300 L water/ha at first to second node stage or before a 5 % infection level is reached. Repeat application 21 days after initial application especially if initial application was made in the first node stage.
	<b>Aerial application</b> 750 ml	Apply as above in at least 30 L water/ha.
<b>Powdery mildew</b> ( <i>Erysiphe graminis</i> )	<b>Ground application</b> 750 ml	Powdery mildew should not be treated later than the flag leaf stage.
	<b>Aerial application</b> 750 ml	Apply as above in at least 30 L water/ha.
<b>Leaf rust</b> ( <i>Puccinia recondita</i> )	<b>Ground application</b> 750 ml	Apply in at least 300 L water/ha as soon as the first symptoms are noticed up to the flag leaf stage (leaf rust). Glume blotch should be treated from the second node stage to ear emergence. It may be necessary to repeat the application 21 days later especially if the first application was done early.
<b>Glume blotch</b> ( <i>Septoria nodorum</i> )	<b>Aerial application</b> 900 ml	Apply as above in at least 30 L water/ha.
<b>Speckled leaf blotch</b> ( <i>Septoria tritici</i> )	<b>Ground application</b> 750 ml	Apply in at least 300 L water/ha as soon as the first symptoms are noticed but not later than the flag leaf stage.
<b>Yellow rust (Stripe rust)</b> ( <i>Puccinia striiformis</i> )		Apply as above and repeat application if symptoms re-appear or weather conditions favor disease development.
	<b>Aerial application</b> 750 ml	Apply as above in at least 30 L water/ha.
<b>Stem rust</b> ( <i>Puccinia graminis</i> )	<b>Ground application</b> 825 ml	Apply in not less than 300 L water/ha as soon as the first symptoms are noticed. Ensure that all plant parts are thoroughly covered including the stem. Do not apply later than the flag leaf stage. Repeat application if necessary.

## WAARSKUWINGS

Onthoudingsperiodes (minimum aantal dae tussen laaste toediening en oes of weiding):

Aartappels, bone (oes) .....	14 dae
Ertjies, tamaties (oes) .....	7 dae
Grondboon, boontjiehooi (voer) .....	42 dae
Hawer (oes, beweiding en voer) .....	56 dae
Koring, gars (oes, beweiding en voer) .....	77 dae
Sitrus.....	175 dae

- Skadelik indien ingesluk, ingeasem of deur die vel geabsorbeer word.
- Irriterend vir vel en oë.
- Giftig vir visse.
- Berg in 'n koel, droë plek weg van voedsel, voer en ander landbouchemikalië.
- Hou buite bereik van kinders, oningesigte persone en diere.
- **Herbetredingsinterval:** Moet nie behandelde gebied binnegaan voordat die spuitneerslag droog is nie tensy beskermende klere gedra word.
- **Lugtoediening:** Stel alle inwoners in die onmiddellike omgewing van die gebied wat bespuit gaan word in kennis en reik die nodige waarskuwings uit. Moet nie oor water of aangrensende gebiede wat nie onder behandeling is spuit nie en voorkom dat die spuitnewel na hierdie gebiede oorwaai.

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 stowwe wat nie op die etiket aangedui is nie en die voorkoms van weerstand van die siekte 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 effek op mense of diere of vir 'n gebrek aan prestasie van die betrokke middel as gevolg van die versuim van die gebruiker om etiketaanwysings na te kom of as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kon word nie. Raadpleeg die verskaffer in die geval van enige onsekerheid.

## VOORSORGMAATREËLS

- Moet nie eet, drink of rook terwyl die produk hanteer word nie.
- Vermy besoedeling van voedsel, voer, drinkwater en eetgerei.
- Dra rubberhandskoene en gesigskerm wanneer die konsentraat hanteer word. Indien dit in u oë kom, spoel onmiddellik uit. Indien dit op u vel kom, was dit dadelik af. Indien dit op u klere mors, trek uit en was dit.
- Vermy kontak met die spuitstof sover moontlik tydens toediening. Vermy oorwaai van spuitnewel na ander gewasse, weiding, riviere of damme.
- Maak toediener deeglik skoon na gebruik en gooi waswater waar dit nie gewasse, weiding, riviere of damme sal besoedel nie.

- Vernietig leë houer en moet dit nie vir enige ander doel gebruik nie.
- Keer die leë houer om oor die spuit- of mengtenk en dreineer vir minstens 30 sekondes nadat die vloeい tot 'n gedrup verminder het. Spoel die houer daarna driekeer uit met 'n volume water gelykstaande aan 'n minimum van 10 % van die inhoud van die houer. Gooi die spoelwater by die inhoud van die spuittenk voordat die houer vernietig word.
- Trek werksklere uit en was dit. Was uself.

## **WEERSTANDSWAARSKUWING**

**ORIUS 250 EW** is 'n groepkode 3 swamdoder. Enige populasie van 'n spesifieke swam mag individue insluit wat 'n natuurlike weerstand teen **ORIUS 250 EW** of enige ander groepkode 3 swamdoder het. Indien hierdie swamdoder herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die swampopulasie oorheers. Hierdie weerstandbiedende swamme sal waarskynlik nie deur **ORIUS 250 EW** of enige ander groepkode 3 swamdoder beheer word nie. Om weerstand teen swamdoders te vertraag:

- Vermy die eksklusieve herhaalde gebruik van swamdoers met dieselfde groepkode. Wissel af met, of gebruik tenkmengsels van produkte in verskillende swamdoergroepkodes.
- Raadpleeg toepaslike individuele produksetikette wanneer daar afgewissel word, of tenkmengsels gemaak word, met produkte van ander swamdoergroepkodes.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies ) in swamdoerprogramme.

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

## **GEBRUIKSAANWYSINGS**

**Gebruik slegs soos aangedui.**

### **Verenigbaarheid**

Die verenigbaarheid van **ORIUS 250 EW** met ander produkte kan beïnvloed word deur die formulering van die betrokke produkte asook die kwaliteit van die verdunningswater. Aangesien die formulering van produkte kan verander sonder die medewete van ADAMA South Africa (Pty.) Ltd. en die waterkwaliteit van plaas tot plaas kan verskil, moet 'n fisiese verenigbaarheidstoets altyd uitgevoer word voordat bespuiting begin.

**ORIUS 250 EW** kan in 'n tenkmengsel met RIMON® 10 EC ( Reg No L 6285) en ander nie-alkaliese middels toegedien word.

### **Menginstruksies**

Maak die spuittenk halfvol met water en voeg die benodigde hoeveelheid **ORIUS 250 EW** by terwyl geroer word. Vul daarna die tenk met water. Dit is belangrik om daarop te let dat die spuitmengsel gedurende vulling en toediening aanhoudend geroer moet word.

## **TOEDIENING**

### **Grondtoediening**

**ORIUS 250 EW** kan met 'n konvensionele hoëvolume spuitapparaat wat toegerus is met 'n doeltreffende roermeganisme, toegedien word. Die spuitstukke moet toegerus wees met holkeëlspuitpunte wat medium tot fyn druppels lewer. Om te verseker dat die spuitmengsel eweredig oor die teikengebied versprei word moet die spuitapparaat korrek gekalibreer wees.

## Lugtoediening

**ORIUS 250 EW** kan slegs deur 'n geregistreerde Lugbespuitingsoperator met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS Kode 10118 (Aerial Application of Agricultural Pesticides) uit die lug bespuit word. Verseker dat die spuitmengsel eweredig oor die teikenarea versprei word, en die verlies aan spuitmengsel tydens toediening tot 'n minimum beperk word. Dit is daarom belangrik om aan die volgende vereistes te voldoen:

- Volume: 'n Spuitmengsel volume van 30 L / ha word aanbeveel. Hierdie produk is nie teen 'n verlaagde volume getoets nie. Die registrasiehouer kan nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige nadelige effekte indien hierdie produk teen 'n laer volume, as hierbo aanbeveel, toegedien word nie.
- Druppelbedekking: 25 - 35 druppels / cm<sup>2</sup> moet op die teikenarea herwin word.
- Druppelgrootte: 'n Druppelspektrum met 'n VMD van 280 - 300 mikron word aanbeveel. Beperk die produksie van druppels kleiner as 150 mikron (hoe drywing en verdampingspotensiaal) tot 'n minimum.
- Vlieghoogte: Handhaaf die hoogte van die spuitbalk bo die teiken op 3 - 4 m. Moet nie spuit wanneer die vliegtuig duik, uitklim of draai nie.
- Gebruik gesikte atomiseringsapparaat wat die vereiste druppelgrootte en bedekking sal produseer, maar die minste verlies van produk verseker. Die spuitstelsel moet 'n druppelspektrum met die kleinste moontlike Relatiewe Span produseer.
- Plaas al die atomiseerders in die binnste 60 - 75 % van die vlerkspan om te verhoed dat druppels binne-in die vlerkpuntvorteks beweeg.
- Die verskil in temperatuur tussen die nat- en droëboltermometer van 'n swaaihigrometer, moet nie 8 °C oorskry nie.
- Stop bespuiting indien die windspoed 15 km / u oorskry.
- 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 hoe lugvoeg toestande (relatiewe humiditeit 80 % en meer) mag tot volgende probleme aanleiding gee:
  - a) verlaagde doeltreffendheid aangesien die druppels as 'n wolk in die lug bly hang en moontlik verdamp (onvoldoende bedekking op teiken), en
  - b) skade aan nie-teiken gewasse of sensitiewe areas as gevolg van wegdrywing van die spuitwolk na nie-teiken area.
- Verseker dat die Lugbespuitingsoperator presies weet watter lande bespuit moet word.
- Dit is noodsaaklik om 'n versekering van die Lugbespuitingsoperator te verkry dat aan al die bogenoemde vereistes voldoen sal word en dat data van belang in 'n logboek saamgevat is vir toekomstige verwysing.

## TOEDIENINGSHOEVEELHEDE

GEWAS EN SIEKTE	DOSIS/HA (of soos aangedui)	OPMERKINGS
<b>Aartappels</b> <b>Vroeëroes</b> ( <i>Alternaria solani</i> )	<b>Grondtoediening</b> 75 ml/100 L water	Dien <b>ORIUS 250 EW</b> toe as 'n voorkomende bespuiting wanneer toestande gunstig is vir die ontwikkeling van vroeëroes (warm, vogtige weerstoestande). Dien toe teen ten minste 500 L spuitmengsel/ha. Moet nie minder as 375 ml <b>ORIUS 250 EW</b> /ha toedien nie.  Herhaal toediening elke 7–10 dae. Moet nie meer as 4 keer per seisoen op dieselfde gewas toedien nie.
	<b>Lugtoediening</b> 500–750 ml	Dien toe soos bo in ten minste 30 L, maar verkiekslik 40 L water/ha. Gebruik die hoër dosis na blomstadium as die plante digter is of as toestande gunstig is vir die ontwikkeling van die siekte.
<b>Bone</b> (Droë- en groenbone) <b>Bruinroes</b> ( <i>Uromyces appendiculatus</i> )	<b>Grondtoediening</b> 500 ml	Dien toe as 'n voorkomende volle dekbespuiting in nie minder nie as 500 L water/ha sodra die eerste tekens van bruinroes opgemerk word.  Herhaal toediening elke 10–12 dae indien nodig veral as weerstoestande gunstig is vir die ontwikkeling van die siekte.
	<b>Lugtoediening</b> 600 ml	Dien toe soos bo in ten minste 30 L water/ha.
<b>Ertjies</b> <b>Poeieragtige skimmel</b> ( <i>Erysiphe pisi</i> )	<b>Grondtoediening</b> 50 ml/100 L water	Begin toediening sodra die eerste tekens van die siekte waargeneem word en herhaal met tussenposes van 10–14 dae. Voeg 'n geskikte benatter by wat 'n eweredige verspreiding en penetrasie van <b>ORIUS 250 EW</b> sal verseker. Dien toe teen ten minste 500 L spuitmengsel/ha. Moet nie meer as 3 bespuitings per seisoen toedien nie.
	<b>Lugtoediening:</b> 300 ml	Dien toe soos bo in ten minste 30 L, maar verkiekslik 40 L water/ha.

GEWAS EN SIEKTE	DOSIS/HA (of soos aangedui)	OPMERKINGS
<b>Gars</b> <b>Blaarroes</b> ( <i>Puccinia hordei</i> )	<b>Grondtoediening</b> 750 ml	Dien toe in 300 L water/ha sodra die eerste simptome waargeneem word. Herhaal toediening 28 dae later indien simptome weer voorkom.
	<b>Lugtoediening</b> 750 ml	Dien toe soos bo in ten minste 30 L water/ha.
<b>Blaarvlek</b> ( <i>Rhyncosporium secalis</i> )	<b>Grondtoediening</b> 500 ml	Dien toe in 300 L water/ha sodra die eerste simptome waargeneem word. 'n Voorkomende behandeling kan tussen die seweblaar- en vlagblaarstadium gemaak word.
	<b>Lugtoediening</b> 500 ml	Dien toe soos bo in ten minste 30 L water/ha.
<b>Netvlek</b> ( <i>Pyrenophora teres</i> ) ( <i>Helminthosporium</i> spp.)	<b>Grondtoediening</b> 750 ml	Dien toe in 300 L water/ha sodra eerste simptome verskyn veral vanaf vlagblaarstadium tot aarverskynning. Indien infeksievlakte hoog is, herhaal 21–28 dae later.
	<b>Lugtoediening</b> 900 ml	Dien toe soos bo in ten minste 30 L water/ha.
<b>Oogvlek</b> ( <i>Pseudocercosporella herpotrichoides</i> )	<b>Grondtoediening</b> 750 ml	Dien toe in 300 L water/ha tussen die seweblaar- en vlagblaarstadium.
	<b>Lugtoediening</b> 900 ml	Dien toe soos bo in ten minste 30 L water/ha.
<b>Poeieragtige skimmel</b> ( <i>Erysiphe graminis</i> )	<b>Grondtoediening</b> 750 ml	Dien toe in 300 L water/ha sodra eerste simptome waargeneem word. Indien nodig, herhaal bespuiting 28 dae later.
	<b>Lugtoediening</b> 900 ml	Dien toe soos bo in ten minste 30 L water/ha.

GEWAS EN SIEKTE	DOSIS/HA (of soos aangedui)	OPMERKINGS
<b>Grondbone</b> <b>Vroeë blaarvlek</b> ( <i>Cercospora arachidicola</i> ) <b>Laat blaarvlek</b> ( <i>C. personatum</i> ) <b>Spatselvlek</b> ( <i>Phoma arachidicola</i> ) <b>Roes</b> ( <i>P. arachidis</i> )	<b>Grondtoediening</b> <b>Droëland:</b> 400 ml <b>Besproeiing:</b> 600 ml  <b>Lugtoediening</b> <b>Droëland:</b> 500 ml <b>Besproeiing:</b> 750 ml	Dien toe as 'n voorkomende bespuiting of sodra die eerste simptome waargeneem word in 400–500 L water/ha en rig bespuiting oor die ry. Om 'n deeglike benetting van alle plantdele te verseker moet 'n geskikte benatter/kleefmiddel bygevoeg word. Herhaal toediening elke 10–14 dae maar moet nie 'n totaal van 4 bespuitings per seisoen oorskry nie.  Dien toe soos bo in ten minste 30 L, maar verkiezelik 40 L water/ha.
<b>Hawer</b> <b>Kroonroes</b> ( <i>P. coronata</i> )	<b>Grondtoediening</b> 500 ml  <b>Lugtoediening</b> 500 ml	Dien toe in ten minste 300 L water/ha sodra die eerste simptome waargeneem word.  Dien toe soos bo in ten minste 30 L water/ha.
<b>Koring</b> <b>Blaarroes</b> ( <i>Puccinia recondita</i> ) <b>Bruinaarsiekte</b> ( <i>Septoria nodorum</i> )	<b>Grondtoediening</b> 750 ml  <b>Lugtoediening</b> 900 ml	Dien toe in ten minste 300 L water/ha sodra die eerste tekens van die siekte opgemerk word tot en met die vlagblaarstadium (blaarroes). By bruinaarsiekte moet toediening geskied vanaf die tweede nodestadium maar nie later as aarverskyning nie. 'n Ovolgbespuiting 21 dae na die eerste bespuiting mag nodig wees indien die aanvanklike bespuiting vroeg gedoen is.  Dien toe soos bo in ten minste 30 L water/ha.
<b>Oogvlek</b> ( <i>Pseudocercosporella herpotrichoides</i> )	<b>Grondtoediening</b> 750 ml  <b>Lugtoediening:</b> 750 ml	Dien toe in 300 L water/ha by die eerste tot tweede nodestadium of voordat die infeksievlek 5 % bereik het. Indien nodig, kan die toediening herhaal word 21 dae na die eerste bespuiting veral as dit in die eerste nodestadium toegedien is.  Dien toe soos bo in ten minste 30 L water/ha.
<b>Poeieragtige skimmel</b> ( <i>Erysiphe graminis</i> )	<b>Grondtoediening</b> 750 ml  <b>Lugtoediening:</b> 750 ml	Poeieragtige skimmel moet nie later as die vlagblaarstadium behandel word nie.  Dien toe soos bo in ten minste 30 L water/ha.

GEWAS EN SIEKTE	DOSIS/HA (of soos aangedui)	OPMERKINGS
<b>Stamroes</b> ( <i>Puccinia graminis</i> )	<b>Grondtoediening</b> 825 ml	Dien toe in nie minder nie as 300 L water/ha sodra die eerste tekens van infeksie waargeneem word. Verseker dat alle plantdele, insluitende die stam, goed benat word. Moet nie later as die vlagblaarstadium toedien nie. Herhaal toediening indien nodig.
<b>Streeproes</b> <b>(Geelroes)</b> ( <i>Puccinia striiformis</i> )	<b>Grondtoediening</b> 750 ml	Dien toe in ten minste 300 L water/ha sodra die eerste simptome waargeneem word. Herhaal toediening indien simptome weer voorkom of as weerstoestande gunstig is vir die ontwikkeling van streeproes.
<b>Vaalblaar</b> ( <i>Septoria tritici</i> )	<b>Lugtoediening</b> 750 ml	Dien toe in ten minste 300 L water/ha sodra die eerste simptome waargeneem word. Moet nie later as die vlagblaarstadium toedien nie.  Dien toe soos bo in ten minste 30 L water/ha.
<b>Mango's</b> <b>Poeieragtige skimmel</b> ( <i>Oidium mangiferae</i> )	20 ml/100 L water	Dien toe sodra die eerste simptome waargeneem word en herhaal met 10–14 dae tussenposes tot 100 % blomblaarval. Normaalweg begin besmetting wanneer ongeveer 50 % van die blomme oop is. Dien toe as 'n volle dektoediening en verseker dat die blomtrosse deeglik benat word.  <b>Let wel:</b> Onegalige blom oor 'n verlengde tydperk <b>sal</b> tot swak beheer lei. As gevolg van die eienskappe van die siekte en die effek van onvoorspelbare weersomstandighede mag variërende beheer verkry word en mag die standaard vereis vir uitvoervrugte nie behaal word nie.
<b>Sitrus</b> <b>Nawels, Clementines en Minneola tangelos</b> <b>Nawel-endverrotting (swartkernverrotting)</b> ( <i>Alternaria citri</i> )	80 ml/100 L water	Dien twee toedienings toe, beginnende by 50 % blomblaarval en daarna by 100 % blomblaarval. Dien toe as 'n mediumdekbespuiting (ongeveer 20 L sputmengsel per boom, afhangend van boomgrootte).  <b>Let wel:</b> Onegalige blom oor 'n verlengde tydperk <b>sal</b> tot swak beheer lei. As gevolg van die eienskappe van die siekte en die effek van onvoorspelbare weersomstandighede mag variërende beheer verkry word en mag die standaard vereis vir uitvoervrugte nie behaal word nie.

GEWAS EN SIEKTE	DOSIS/HA (of soos aangedui)	OPMERKINGS
<b>Tamaties</b> <b>Vroeëroes</b> ( <i>Alternaria solani</i> )	75 ml/100 L water	<p>Afhangende van planthoogte en digtheid, dien 5–12 L spuitmengsel/100 m rylengte toe sodra die eerste vroeëroes simptome waargeneem word. Verseker deeglike bedekking van alle plantdele. Afhangende van weerstoestande, moet 'n bespuiting met <b>ORIUS 250 EW</b> herhaal word met tussenposes van 7–10 dae.</p> <p>Moet nie 'n totaal van 4 bespuitings per land per seisoen oorskry nie. <b>ORIUS 250 EW</b> moet verkieslik met 'n nie-DMI swamddoder afgewissel word. Dit is belangrik om daarop te let dat <b>ORIUS 250 EW slegs</b> vroeëroes in <b>tamaties</b> beheer.</p>
<b>Uie</b> <b>Alternariavlek</b> ( <i>Alternaria porri</i> )	150 ml/100 L water	<p>Dien toe teen 500 L spuitmengsel/ha sodra die eerste simptome opgemerk word. Herhaal elke 7–14 dae afhangende van diegraad van besmetting. Moet nie 'n totaal van 4 bespuitings per seisoen oorskry nie.</p> <p>'n Geskikte benatter/kleefmiddel moet gebruik word om te verseker dat blare deeglik benat word sonder oormatige afloop van die spuitmengsel. Moet nie in spruituie ("spring onions") toedien nie.</p>