



# ORIUS 200 EW

Reg. no. L7479 Act/Wet 36 of/van 1947  
N-AR 0780

An emulsion oil in water systemic fungicide for the control of diseases in crops as indicated. 'n Emulsie olie in water sistemiese swamdoder vir die beheer van siektes in gewasse soos aangedui.

**FRAC FUNGICIDE GROUP CODE**

**3**

**FRAC SWAMDODER GROEPKODE**

## ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

tebuconazole (triazole) ..... 200 g/L ..... tebukonasool (triasool)

## NET VOLUME/NETTO VOLUME

..... L

## REGISTRATION HOLDER/REGISTRASIEHOUER

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**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

Griffon Poison Information Centre: +27 82 446 8946

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Batch number .....

Date of Manufacture .....

Lotnommer  
Datum van Vervaardiging

UN no.: 3082



**CAUTION  
VERSIGTIG**



## WARNINGS

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

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

- 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 man or animal of 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, **ORIOUS 200 EW** is a group code 3 fungicide. Any fungus population may contain individuals naturally resistant to **ORIOUS 200 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 **ORIOUS 200 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 fungicide group code M, 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.

**NOTE:** **ORIOUS 200 EW** belongs to the demethylation inhibitors (DMI) group of fungicides. Repeated exclusive use of **ORIOUS 200 EW** or other fungicides which belong to the same chemical class (**triazole**) with the same mode of action, may lead to a buildup of resistant strains of fungi which can result in a loss of disease control. Should a treatment with **ORIOUS 200 EW** applied according to label recommendations not be efficacious, a resistant strain may be present. If a DMI resistant strain is positively identified, registered non-DMI fungicides should be used to control the disease. To delay the build-up of resistant strains, **ORIOUS 200 EW** should be alternated with registered non-DMI fungicides or applied in a tank-mixture with non-DMI fungicides. This resistance management strategy should not include alternation with or tank-mixtures of fungicides to which resistance has already developed. Do not apply **ORIOUS 200 EW** more than **four** times to the same crop per season.

## DIRECTIONS FOR USE

**Use only as indicated.**

### Compatibility

The compatibility of **ORIOUS 200 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 and the quality of water can differ from farm to farm, a physical compatibility test should always be carried out prior to application. **ORIOUS 200 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 **ORIOUS 200 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

**ORIOUS 200 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 **ORIOUS 200 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 aurally 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).
  - 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 DISEASE	DOSAGE/ha or as indicated	REMARKS
<b>Barley</b> Eye spot <i>(Pseudocercospora herpotrichoides)</i>  Halo spot <i>(Selenophoma donacis)</i>  Net Blotch <i>(Pyrenophora teres)</i> <i>(Helminthosporium spp.)</i>	<b>Ground application</b> 900 ml	Apply in 300 L water/ha between the seven leaf and flag leaf stage.  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 to 28 days later.
	<b>Aerial application</b> 1 100 ml	Apply as above in at least 30 L water/ha.
	<b>Ground application</b> 600 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> 600 ml	Apply as above in at least 30 L water/ha.
Leaf rust <i>(Puccinia hordei)</i>	<b>Ground application</b> 900 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.
Powdery mildew <i>(Erysiphe graminis)</i>	<b>Ground application</b> 900 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> 1 100 ml	Apply as above in at least 30 L water/ha.
<b>Beans</b> (Dry and green beans)  Rust <i>(Uromyces appendiculatus)</i>	<b>Ground application</b> 600 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 favor the development of the disease.
	<b>Aerial application</b> 750 ml	Apply as above in at least 30 L water/ha.

CROP AND DISEASE	DOSAGE/ha or as indicated	REMARKS
<p><b>Citrus</b>  <b>Navels, clementines and minneolas</b>  Navel-end rot  (<i>Alternaria citri</i>)</p>	100 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 / tree, depending on tree size).
<p><b>Groundnuts</b>  Early leafspot  (<i>Cercospora arachidicola</i>)  Late leafspot  (<i>Cercosporidium personatum</i>)  Web blotch  (<i>Phoma arachidicola</i>)  Rust  (<i>P. arachidis</i>)</p>	<p><b>Ground application</b>  <b>Dry land:</b> 500 ml  <b>Irrigation:</b> 750 ml</p> <p><b>Aerial application</b>  <b>Dry land:</b> 600 ml  <b>Irrigation:</b> 900 ml</p>	<p>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.</p> <p>It is recommended that a suitable wetter/sticker should be added to the spray-mixture to ensure thorough wetting of all plant parts.</p> <p>Repeat application every 10-14 days but do not exceed 4 sprays/season.</p> <p>Apply as above in at least 30 L but preferably 40 L water/ha.</p>
<p><b>Mangoes</b>  Powdery mildew  (<i>Oidium mangiferae</i>)</p>	25 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.
<p><b>Oats</b>  Crown rust  (<i>P. coronata</i>)</p>	<p><b>Ground application</b>  600 ml</p> <p><b>Aerial application</b>  600 ml</p>	<p>Apply in at least 300 L water/ha as soon as symptoms are noticed.</p> <p>Apply as above in at least 30 L water/ha.</p>
<p><b>Onions</b>  Purple blotch  (<i>A. porri</i>)</p>	190 ml/100 L water	<p>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/season.</p> <p>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.</p>

CROP AND DISEASE	DOSAGE/ha or as indicated	REMARKS
<p><b>Peas</b> Powdery mildew (<i>E. pisi</i>)</p>	<p><b>Ground application</b> 60 ml/100 L water</p> <p><b>Aerial application</b> 375 ml</p>	<p>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>ORIOUS 200 EW</b>. Apply at least 500 L spray mixture/ha. Do not exceed 3 applications/season.</p> <p>Apply as above in at least 30 L but preferably 40 L water/ha.</p>
<p><b>Potatoes</b> Early blight (<i>A. solani</i>)</p>	<p><b>Ground application</b> 90 ml/100 L water</p> <p><b>Aerial application</b> 600 - 900 ml</p>	<p>Apply <b>ORIOUS 200 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 450 ml <b>ORIOUS 200 EW</b>/ha. Repeat application every 7-10 days, but do not exceed 4 applications/season.</p> <p>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 favourable for the development of the disease.</p>
<p><b>Tomatoes</b> Early blight (<i>A. solani</i>)</p>	<p>90 ml/100 L water</p>	<p>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>ORIOUS 200 EW</b> must preferably be alternated with a non- DMI fungicide. It is important to note that <b>ORIOUS 200 EW only</b> controls early blight in <b>tomatoes</b>.</p>
<p><b>Wheat</b> Eye spot (<i>P. herpotrichoides</i>) Powdery mildew (<i>E. graminis</i>)</p>	<p><b>Ground application</b> 900 ml</p> <p><b>Aerial application</b> 900 ml</p>	<p>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. Powdery mildew should not be treated later than the flag leaf stage.</p> <p>Apply as above in at least 30 L water/ha.</p>

CROP AND DISEASE	DOSAGE/ha or as indicated	REMARKS
<p>Leaf rust (<i>P. recondita</i>)</p> <p>Glume blotch (<i>Septoria nodorum</i>)</p>	<p><b>Ground application</b> 900 ml</p> <p><b>Aerial application</b> 1 100 ml</p>	<p>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.</p> <p>It may be necessary to repeat the application 21 days later especially if the first application was done early.</p> <p>Apply as above in at least 30 L water/ha</p>
<p>Speckled leaf blotch (<i>S. tritici</i>)</p> <p>Yellow rust (Stripe rust) (<i>P. striiformis</i>)</p> <p>Stem rust (<i>P. graminis</i>)</p>	<p><b>Ground application</b> 900 ml</p> <p><b>Aerial application</b> 900 ml</p> <p><b>Ground application</b> 1000 ml</p>	<p>Apply in at least 300 L water/ha as soon as the first symptoms are noticed but not later than the flag leaf stage.</p> <p>Apply as above and repeat application if symptoms re-appear or weather conditions favour disease development.</p> <p>Apply as above in at least 30 L water/ha.</p> <p>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.</p>



## WAARSKUWINGS

**Onthoudingsperiodes** (Minimum aantal dae tussen laaste toediening en oes):

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

- 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 landbouchemikalieë.
- Hou buite bereik van kinders, oningeligte 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 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 mens of dier 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 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 houers 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 vloeï 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

Vir die doel van weerstandbestuur word **ORIOUS 200 EW** as 'n groepkode 3 swamdoder geklassifiseer. Enige populasie van 'n spesifieke swam mag individue insluit wat 'n natuurlike weerstand teen **ORIOUS 200 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 **ORIOUS 200 EW** of enige ander groepkode 3 swamdoder beheer word nie.

Om weerstand teen swamdoders te vertraag:

- vermy die eksklusiewe herhaaldelike gebruik van swamdoders met dieselfde groepkode. Wissel af met, of gebruik tenkmengsels van produkte in verskillende swamdodergroepkodes,
- raadpleeg toepaslike individuele produktetikette wanneer daar afgewissel word, of tenkmengsels gemaak word, met produkte in swamdodergroepkodes M,
- integreer ander beheermaatreëls (chemies, verbouing, biologies ) in swamdoderprogramme.
- Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk.

**LET WEL: ORIOUS 200 EW** behoort aan die demetilase inhibeerder (**DMI**) groep van swamdoders. Aanhoudende eksklusiewe gebruik van **ORIOUS 200 EW** en ander swamdoders wat aan dieselfde chemiese klas (**triasool**) behoort met dieselfde wyse van werking, mag aanleiding gee tot die opbou van weerstandbiedende swamrasse met gevolglike verlies aan doeltreffende siektebeheer. Indien 'n behandeling na toediening van **ORIOUS 200 EW** volgens etiketaanwysings nie suksesvol is nie, mag 'n weerstandbiedende ras van die swam teenwoordig wees. Indien 'n weerstandbiedende **DMI** swamras positief geïdentifiseer word, moet geregistreerde swamdoders wat nie aan die **DMI** swamdodergroep behoort nie, gebruik word om die siekte te beheer. Om die opbou van weerstandbiedende swamrasse te vertraag, moet **ORIOUS 200 EW** afgewissel word met geregistreerde nie-**DMI** swamdoders of in 'n tenkmengsel met nie-**DMI** swamdoders toegedien word. Hierdie weerstand-bestuurstrategie moet nie afwisseling met of tenkmengsels van swamdoders waarteen weerstand reeds ontwikkel het, of dieselfde wyse van werking het, insluit nie. Moet nie **ORIOUS 200 EW** meer as vierkeer per seisoen op dieselfde gewas toedien nie.

## GEBRUIKSAANWYSINGS

**Gebruik slegs soos aangedui.**

### Verenigbaarheid

Die verenigbaarheid van **ORIOUS 200 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 en die waterkwaliteit van plaas tot plaas kan verskil, moet 'n fisiese verenigbaarheidstoets altyd uitgevoer word voordat bespuiting begin. **ORIOUS 200 EW** kan in 'n tenkmengsel met RIMON® 10 EC (Reg No L 6285) en ander nie-alkaliese middels toegedien word.

## Menginstruksies

Maak die spuitenk halfvol met water en voeg die benodigde hoeveelheid **ORIOUS 200 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

**ORIOUS 200 EW** kan met 'n konvensionele hoëvolume spuitapparaat wat toegerus is met 'n doeltreffende roermeganisme, toegedien word. Die spuitstukke moet toegerus wees met holkeëlsputpunte 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

**ORIOUS 200 EW** kan slegs deur 'n geregistreerde Lugbespuitingsoperateur 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 (hoë drywing en verdampingspotensiaal) tot 'n minimum.
- Vlieghoogte: Handhaaf die hoogte van die spuitbalk bo die teiken op 3-4 m. Moet nie spuit wanneer die vliegtuig duik, uitklim of draai nie.
- Gebruik geskikte 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 hoë lugvog 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).
  - b) Skade aan nie-teiken gewasse of sensitiewe areas as gevolg van wegdrywing van die spuitwolk na nie-teiken area.
- Verseker dat die Lugbespuitingsoperateur presies weet watter lande bespuit moet word.

- Dit is noodsaaklik om 'n versekering van die Lugbespuitingsoperateur 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> Vroeëroes ( <i>Alternaria solani</i> )	<b>Grondtoediening</b> 90 ml/100 L water  <b>Lugtoediening</b> 600-900 ml	Dien <b>ORIOUS 200 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 450 ml <b>ORIOUS 200 EW</b> /ha toedien nie. Herhaal toediening elke 7-10 dae. Moet nie meer as 4 keer/seisoen op dieselfde gewas toedien nie.  Dien toe soos bo in ten minste 30 L maar verkieslik 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)  Bruinroes ( <i>Uromyces appendiculatus</i> )	<b>Grondtoediening</b> 600 ml  <b>Lugtoediening</b> 750 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.  Dien toe soos bo in ten minste 30 L water/ha.
<b>Ertjies</b> Poeieragtige skimmel ( <i>Erysiphe pisi</i> )	<b>Grondtoediening:</b> 60 ml/100 L water  <b>Lugtoediening</b> 375 ml	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>ORIOUS 200 EW</b> sal verseker. Dien toe teen ten minste 500 L spuitmengsel/ha. Moet nie meer as 3 bespuitings/seisoen toedien nie.  Dien toe soos bo in ten minste 30 L maar verkieslik 40 L water/ha.

GEWAS EN SIEKTE	DOSIS/HA of soos aangedui	OPMERKINGS
<b>Gars</b> Blaarroes ( <i>Puccinia hordei</i> )	<b>Grondtoediening</b> 900 ml  <b>Lugtoediening</b> 900 ml	Dien toe in 300 L water/ha sodra die eerste simptome waargeneem word. Herhaal toediening 28 dae later indien simptome weer voorkom.  Dien toe soos bo in ten minste 30 L water/ha.
Blaarvlek ( <i>Rhynchosporium secalis</i> )	<b>Grondtoediening:</b> 600 ml  <b>Lugtoediening:</b> 600 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.  Dien toe soos bo in ten minste 30 L water / ha.
Netvlek ( <i>Pyrenophora teres</i> ) ( <i>Helminthosporium spp.</i> ) Ringvlek ( <i>Selenophoma donacis</i> )  Oogvlek ( <i>Pseudocercospora herpotrichoides</i> )	<b>Grondtoediening</b> 900 ml          <b>Lugtoediening</b> 1 100 ml	Dien toe in 300 L water/ha sodra eerste simptome verskyn veral vanaf vlagblaarstadium tot aarverskyning. Indien infeksievlakke hoog is, herhaal 21–28 dae later.  Dien toe in 300 L water/ha tussen die seweblaar- en vlagblaarstadium.          Dien toe soos bo in ten minste 30 L water/ha.
Poeieragtige skimmel ( <i>E. graminis</i> )	<b>Grondtoediening</b> 900 ml  <b>Lugtoediening</b> 1 100 ml	Dien toe in 300 L water/ha sodra eerste simptome waargeneem word. Indien nodig, herhaal bespuiting 28 dae later.  Dien toe soos bo in ten minste 30 L water/ha.

GEWAS EN SIEKTE	DOSIS/HA of soos aangedui	OPMERKINGS
<p><b>Grondbone</b> Vroeë blaarvlek (<i>Cercospora arachidicola</i>) Laat blaarvlek (<i>C. personatum</i>) Spatselvlek (<i>Phoma arachidicola</i>) Roes (<i>P. arachidis</i>)</p>	<p><b>Grondtoediening</b> <b>Droëland:</b> 500 ml <b>Besproeiing:</b> 750 ml</p> <p><b>Lugtoediening</b> <b>Droëland:</b> 600 ml <b>Besproeiing:</b> 900 ml</p>	<p>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 benatting 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/seisoen oorsky nie.</p> <p>Dien toe soos bo in ten minste 30 L maar verkieselik 40 L water/ha.</p>
<p><b>Hawer</b> Kroonroes (<i>P. coronata</i>)</p>	<p><b>Grondtoediening</b> 600 ml</p>	<p>Dien toe in ten minste 300 L water/ha sodra die eerste simptome waargeneem word.</p>
	<p><b>Lugtoediening</b> 600 ml</p>	<p>Dien toe soos bo in ten minste 30 L water/ha.</p>
<p><b>Koring</b> Blaarroes (<i>P. recondita</i>) Bruinaarsiekte (<i>Septoria nodorum</i>)</p>	<p><b>Grondtoediening</b> 900 ml</p> <p><b>Lugtoediening</b> 1 100 ml</p>	<p>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 Opvolgbespuiting 21 dae na die eerste bespuiting mag nodig wees indien die aanvanklike bespuiting vroeg gedoen is.</p> <p>Dien toe soos bo in ten minste 30 L water/ha</p>
<p>Oogvlek (<i>P. herpotrichoides</i>)  Poeieragtige skimmel (<i>E. graminis</i>)</p>	<p><b>Grondtoediening</b> 900 ml</p> <p><b>Lugtoediening</b> 900 ml/ha</p>	<p>Dien toe in 300 L water/ha by die eerste tot tweede nodestadium of voordat die infeksievlak 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. Poeieragtige skimmel moet nie later as die vlagblaarstadium behandel word nie.</p> <p>Dien toe soos bo in ten minste 30 L water/ha.</p>

GEWAS EN SIEKTE	DOSIS/HA of soos aangedui	OPMERKINGS
<p><b>Koring</b> (vervolg)</p> <p>Stamroes (<i>P. graminis</i>)</p> <p>Vaalblaar (<i>S. tritici</i>)</p> <p>Streeproes (Geelroes) (<i>P. striiformis</i>)</p>	<p><b>Grondtoediening:</b> 1 000 ml</p> <p><b>Grondtoediening</b> 900 ml</p> <p><b>Lugtoediening</b> 900 ml</p>	<p>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.</p> <p>Dien toe in ten minste 300 L water/ha sodra die eerste simptome waargeneem word, maar nie later as die vlagblaarstadium nie.</p> <p>Dien toe soos bo en herhaal toediening indien simptome weer voorkom of as weerstoestande gunstig is vir die ontwikkeling van streeproes.</p> <p>Dien toe soos bo in ten minste 30 L water/ha.</p>
<p><b>Mango's</b></p> <p>Poeieragtige skimmel (<i>Oidium mangiferae</i>)</p>	<p>25 ml/100 L water</p>	<p>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 dekhoediening en verseker dat die blomtrosse deeglik benat word.</p>
<p><b>Sitrus</b></p> <p><b>Nawels, clementines en minneolas</b></p> <p>Nawel-endverrotting (<i>Alternaria citrii</i>)</p>	<p>100 ml/100 L water</p>	<p>Dien twee toedienings toe beginnende by 50 % blomblaarval en daarna by 100 % blomblaarval. Dien toe as 'n mediumdekhoediening (ongeveer 20 L spuitmengsel/boom, afhangende van boomgrootte).</p>
<p><b>Tamaties</b></p> <p>Vroeëroes (<i>A. solani</i>)</p>	<p>90 ml/100 L water</p>	<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>ORIOUS 200 EW</b> herhaal word met tussenposes van 7-10 dae.</p> <p>Moet nie 'n totaal van 4 bespuitings/land/seisoen oorskry nie. <b>ORIOUS 200 EW</b> moet verkieslik met 'n nie-DMI swamdoder afgewissel word. Dit is belangrik om daarop te let dat <b>ORIOUS 200 EW slegs</b> vroeëroes in <b>tamaties</b> beheer.</p>

GEWAS EN SIEKTE	DOSIS/HA of soos aangedui	OPMERKINGS
<p><b>Uie</b> Alternariavlek (<i>A. porri</i>)</p>	<p>190 ml/100 L water</p>	<p>Dien toe teen 500 L spuitmengsel/ha sodra die eerste simptome opgemerk word. Herhaal elke 7-14 dae afhangende van die graad van besmetting. Moet nie 'n totaal van 4 bespuitings/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>