



# EPIC XTRA

BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY

**EPIC XTRA**

**FUNGICIDE**

Reg. No. L10085, Act/Wet No. 36 of/van 1947      1:28/07/2016

A suspension concentrate fungicide  
for the control of diseases on crops  
as listed.

'n Suspensiekonsentraat swamddoder  
vir die beheer van siektes op gewasse  
soos aangedui.

FRAC FUNGICIDE GROUP CODE      3;1      FRAC SWAMDODERGROEKODE

**ACTIVE INGREDIENTS / AKTIEWE BESTANDDELE**

Epoxiconazole (triazole)	125 g/l	Epoksikonasool (triasool)
Carbendazim (benzimidazole)	125 g/l	Karbendasim (bensimidasool)

Registration Holder / Registrasiehouer  
Meridian Agrochemical Company (Pty.) Ltd. / (Edms.) Bpk.  
Reg. No. 2000/010819/07  
P.O. Box / Posbus 436, Modderfontein, 1645, South Africa / Suid-Afrika

20ℓ

UN Number: 3082

DIRECTIONS FOR USE ENCLOSED      REFER TO DETAILS AS PRINTED  
ON CONTAINER / BAG

Batch Number      Date of manufacture

**CAUTION / VERSIGTIG**

Meridian Agritech

Icons at the bottom include a person spraying a plant, a hand holding a leaf, a hand holding a flower, a hand holding a seedling, a person spraying water, a person spraying a fish, and a fish.

## **WARNINGS**

**Withholding periods:** Allow the following number of days between last application and harvest or grazing

Groundnuts (hay).....	56 days
Maize seed.....	30 days
Maize foliage for feeding.....	60 days
Barley and wheat (do not graze) .....	60 days

**IMPORTANT:** The recommended withholding period between last application and harvest meets local residue requirements, but may not meet export requirements.

- Harmful if swallowed or inhaled. May cause lung damage. DO NOT inhale spray mist.
- May cause irritation to eyes and skin.
- May cause heritable genetic damage.
- May impair fertility. May cause harm to the unborn child.
- Very toxic to fish and harmful to other aquatic life. May cause long-term adverse effects in the aquatic environment.
- Store product in a cool, dry, well-ventilated area, away from food, feed and drinking water.
- Keep away from children, uninformed persons and animals.
- **EPIC Xtra** has been tested on some of the most important commercial cultivars without any phytotoxic effects. More susceptible cultivars may be released in the future, which need to be tested; for this, apply **EPIC Xtra** to a limited test area before commercial applications are made.
- **Re-entry:** Do not enter treated area until spray deposit has dried unless wearing protective clothing.
- **Aerial application:** Notify all of the inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not spray over or allow the drift to contaminate water or adjacent areas.

**Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal soil, climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label; and the occurrence of resistance of the disease against the remedy concerned; as well as by the method, time and accuracy of the application. The registration holder furthermore, does not accept responsibility for damage to crops, vegetation, the environment, or harm to man or 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**

- Do not inhale fumes or spray mist. Wear self-contained breathing apparatus when spray, mist or fog is generated.
- Avoid contact with eyes and skin. Wear impervious protective clothing (e.g. overalls, rubber gloves and boots) when handling concentrate.
- In case of direct eye contact, flush eyes with plenty of water for 15 minutes holding eyelids open. Seek medical assistance if irritation persists.
- Do not eat, drink or smoke while preparing or applying the spray mix, or before washing face and hands.
- Wash hands, arms and face thoroughly with soap and water after use or in the case of accidental skin contact.
- Avoid spray drift onto other crops, grazing, rivers, dams and other areas not under treatment.
- Clean equipment before and after use. Dispose of wash water where it will not contaminate crops, pastures, rivers, dams, boreholes or other water sources.
- Do NOT apply to areas where surface water is present.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Container disposal: Invert the empty container over the spray tank and allow to drain for at least 30 seconds after the flow has slowed to a drip. Rinse the empty container three times with a volume of water equal to a minimum of 10 % of that of the container. Add rinsings to the contents of the spray tank before destroying the container in the prescribed manner. Destroy empty containers by perforating and flattening before disposal in an approved chemical waste disposal facility or landfill. Do NOT contaminate rivers by disposal. Empty containers should not be burnt.
- Do NOT use the empty container for any other purpose.

## MODE OF ACTION

**EPIC Xtra** is a suspension concentrate formulation containing the active ingredients: epoxiconazole and carbendazim, belonging to the chemical classes of triazoles and benzimidazoles respectively. Epoxiconazole functions by inhibiting C-14-demethylase in sterol biosynthesis. Carbendazim is translocated acropetally and acts systemically by inhibiting beta-tubulin synthesis, thereby inhibiting the growth of mycelia and the development of germ tubes and appressoria. **EPIC Xtra** has protective as well as curative action.

## RESISTANCE MANAGEMENT

For resistance management, **EPIC Xtra** is a group code 1 and 3 fungicide. Any fungus population may contain individuals naturally resistant to **EPIC Xtra** and other group code 1 and 3 fungicides. The resistant individuals can eventually dominate the disease population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **EPIC Xtra** or any other group code 1 or 3 fungicide.

### To 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.
- Refer to individual product labels when alternating products or when using tank mixtures with registered products.
- Integrate other control methods (chemical, cultural, biological) into disease control programmes.

Since the occurrence of resistance cannot be forecast, users are advised to keep treated crops under close observation. If treatment is not effective following the use of **EPIC Xtra** as recommended, a resistant strain may be present. If a resistant strain is positively identified, consideration should be given to prompt use of a fungicide with a different mode of action, for which there is no record of resistance to the relevant disease. Meridian Agrochemical Company (Pty.) Ltd. will not accept any liability for performance failures in the event of a build-up of disease resistance resulting from inadequate resistance management practices as indicated on the label. For specific information on resistance management, contact the registration holder of this product or visit the FRAC website <http://www.frac.info/frac/index.html>.

## USE RESTRICTIONS

- **EPIC Xtra** should be applied as a protective or preventative treatment before disease/s become established.
- Do not apply **EPIC Xtra** to any crop or situation not mentioned in this label.
- Do not apply this product in combination or tank mixture with any other product or agricultural remedy which is not specifically listed on this label. Meridian Agrochemical Company (Pty.) Ltd. accepts no responsibility for any negative effects experienced if the instructions on this label are not adhered to, unless a Meridian representative was consulted beforehand.
- If **EPIC Xtra** is used in a tank mix with other recommended products, consideration should be given to the restrictions of those respective products.

## DIRECTIONS FOR USE

Use only as directed.

## MIXING INSTRUCTIONS

Half fill the spray tank with clean water. Do not use brackish water. Whilst agitating, add the recommended amount of **EPIC Xtra** to the spray water and continue filling the tank to the required volume. Ensure the mixture is homogenous before application and agitate before and during application. When using **EPIC Xtra** in tank mix combinations, full cognisance must be taken of all warnings, precautions and directions for use on that particular product's label. First, mix small quantities of the products separately with water. Check for any signs of incompatibility such as flocculation etc. **Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight.** If spraying is interrupted, the spray mixture in the tank should be agitated properly before spraying commences.

## COMPATIBILITY

The compatibility of **EPIC Xtra** with other products depends on the formulations of the respective products, as well as the quality of the spray water to be used. As formulations change from time to time, it is recommended that a physical compatibility test be done prior to the tank mixture being made. Meridian Agrochemical Company (Pty.) Ltd. cannot be held responsible for damage to crops resulting from tank mixtures with products or formulations not tested.

## APPLICATION TECHNIQUES

### **Ground application**

**EPIC Xtra** may be applied with conventional medium to high volume spray apparatus, provided it is capable of efficient agitation, to ensure the spray mixture is evenly distributed over the target area. Calibrate the apparatus before application, and perform checks regularly during application, to ensure that the correct dosage is applied. Only clean water should be used.

### **Aerial application**

Aerial application may only be done by a registered aerial application operator using a registered and correctly calibrated aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Remedies). It is important to ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is, therefore, essential that the following criteria be met:

#### **Equipment**

- Use suitable atomising equipment that will produce the desired droplet size, as well as coverage of the target area, and will ensure the minimum loss of product through drift.
- The operator must use a nozzle set-up that will produce a droplet spectrum with the lowest possible relative span.
- All nozzles and atomisers should be positioned within the inner 60-75% of the wingspan to prevent droplets from entering the wingtip vortices.

#### **Application Parameters**

- A minimum volume of 30 - 40 l spray mixture per ha is recommended. As this product 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.
- A droplet coverage of 25 – 35 droplets per square cm must be recovered at the target.
- A droplet spectrum with a VMD of 280 – 300 microns is recommended. Ensure that the production of fine droplets, with a VMD less than 150 microns, is restricted to a minimum.
- The height of the spray boom should be maintained at between 3 and 4 m above the target.
- Do not spray when the aircraft is in a climb, at the top of a turn, during a dive, or when banking.

#### **Meteorological Conditions**

- The difference between the wet and dry bulb readings, as determined using a whirling hygrometer, must not exceed 8 °C.
- 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:
  - i. Reduced efficacy due to suspension and evaporation of small droplets in the air (which leads to inadequate coverage).
  - ii. Damage to other sensitive crops and/or non-target areas through drifting of the spray cloud away from the targeted area.
- Do not spray when the wind speed exceeds 15 km per hour.

#### **General**

- Ensure that fields are accurately marked and that the aerial spray operator knows exactly which fields to spray. Indicate adjacent environmentally sensitive areas or sensitive neighbouring crops, beehives or water sources that could be affected by the pesticide.
- **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.**

## **RECOMMENDATIONS**

CROP & DISEASE	DOSAGE RATE	REMARKS
<b>BARLEY</b>  <b>Brown rust (Leaf rust)</b> ( <i>Puccinia hordei</i> )	0.8 – 0.9 l/ha	Commence application at the first sign of disease and repeat application 3 – 5 weeks later, if necessary. <b>Ground application:</b> Apply in 200 – 400 l water/ha

<b>Leaf spot</b> ( <i>Rhynchosporium secalis</i> )	0.8 l/ha	<b>Aerial application:</b> Apply in 30 – 40 l water/ha  Commence application when infection is apparent between the 7-leaf stage and the flag leaf stage. <b>Ground application:</b> Apply in 200 – 400 l water/ha <b>Aerial application:</b> Apply in 30 – 40 l water/ha
<b>Powdery mildew</b> ( <i>Erysiphe graminis</i> )	0.8 l/ha	Commence application at the first sign of disease and repeat application 3 – 5 weeks later, if necessary. <b>Ground application:</b> Apply in 200 – 400 l water/ha
<b>GROUNDNUTS</b>		
<b>Early leaf spot</b> ( <i>Cercospora arachidicola</i> )	0.4 l/ha  0.5 l/ha	<b>Ground application:</b> Apply in 500 l water/ha Commence application at the first signs of disease and repeat application at 10 – 14 day intervals as long as weather remains moist and warm. <b>Aerial application:</b> Apply in 30 – 40 l water/ha
<b>Rust</b> ( <i>Puccinia arachidis</i> )	0.4 l/ha  0.5 l/ha	<b>Ground application:</b> Apply in 500 l water/ha Commence application at the first signs of disease and repeat application at 10 – 14 day intervals as long as weather remains moist and warm. <b>Aerial application:</b> Apply in 30 – 40 l water/ha
<b>MAIZE</b>		
<b>Northern leaf blight</b> ( <i>Setosphaeria turcica</i> )	1.0 – 1.2 l/ha + Suitable registered adjuvant (such as H&R Crop Oil)	Commence application at first sign of disease on the basal 4 to 5 leaves or before infection level reach 5% leaf blight. Repeat application 3-4 weeks later, if necessary. <b>Ground application:</b> Apply in 500 l water/ha
<b>Common Rust</b> ( <i>Puccinia sorghi</i> )		
<b>Grey leaf spot</b> ( <i>Cercospora zeae-maydis</i> )	1.0 – 1.2 l/ha	Commence application at first sign of disease on the basal 4 to 5 leaves or before infection level reach 5% leaf spot. Repeat application 3-4 weeks later, if necessary. Use the higher dosage rate in cases of susceptible cultivars and /or high disease infection pressure. <b>Ground application:</b> Apply in 200 - 500 l water/ha <b>Knapsack with hand-held boom:</b> Apply in 50 – 60 l water/ha <b>Aerial application:</b> Apply in at least 40 l water/ha.
<b>WHEAT</b>		
<b>Brown rust</b> ( <i>Puccinia recondita</i> )	0.8 – 0.9 l/ha	Commence application at the first sign of disease and repeat application 3 – 5 weeks later, if necessary. <b>Ground application:</b> Apply in 200 – 400 l water/ha <b>Aerial application:</b> Apply in 30 – 40 l water/ha
<b>Eye spot</b> ( <i>Pseudocercosporella herpotrichoides</i> )	0.8 – 1.0 l/ha	Apply between the 5 and 7 leaf stage. <b>Ground application:</b> Apply in 200 – 400 l water/ha <b>Aerial application:</b> Apply in 30 – 40 l water/ha
<b>Glume blotch and Speckled leaf blotch</b> ( <i>Septoria spp.</i> )	0.9 – 1.0 l/ha	Apply between the 5 and 7 leaf stage or at the first sign of disease. <b>Ground application:</b> Apply in 200 – 400 l water/ha <b>Aerial application:</b> Apply in 30 – 40 l water/ha

<b>Yellow rust (Stripe rust) (<i>Puccinia striiformis</i>)</b>	0.9 – 1.0 ℥/ha	Commence application at the first sign of disease and repeat application 3 – 5 weeks later, if necessary. <b>Ground application:</b> Apply in 200 – 400 ℥ water/ha <b>Aerial application:</b> Use the higher dose rate and apply in 30 – 40 ℥ water/ha
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#### **ACKNOWLEDGEMENT OF TRADEMARKS**

H&R Crop oil (L 6802)

H&R South Africa Sales (Pty) Ltd.

## WAARSKUWINGS

**Onthoudingsperiode:** Laat die volgende aantal dae toe tussen laaste toediening en oes of beweiding.

Grondbone (hooi).....	56 dae
Mieliesaad.....	30 dae
Mielieblare vir voer.....	60 dae
Gars en Koring (moet nie bewei nie) .....	60 dae

**BELANGRIK:** Die aanbevole onthoudingsperiode tussen laaste toediening en oes voldoen aan die vereistes vir plaaslike residuvlakke, maar mag dalk nie aan vereistes vir uitvoer voldoen nie.

- Skadelik indien ingesluk of ingeasem word. Mag longskade veroorsaak. MOET NIE sproeimis inasem nie.
- Mag oog- en velirritasie veroorsaak.
- Mag genetiese oorerflikheidsprobleme veroorsaak.
- Mag vrugbaarheid beïnvloed. Mag skade aan ongebore baba veroorsaak.
- Baie giftig vir visse en skadelik vir ander waterlewe. Mag in die langtermyn nadelige gevolge vir die wateromgewing inhou.
- Berg in 'n koel, droë, goed geventileerde plek; weg van voedsel, voer en drinkwater.
- Hou weg van kinders, oningesigte persone en diere.
- **EPIC Xtra** is sonder enige fitotoksiteitskade op die meeste belangrike kommersiële kultivars getoets. Meer sensitiewe kultivars mag in die toekoms vrygestel word en dan moet **EPIC Xtra** eers op klein skaal getoets word, alvorens groot kommersiële toedienings gemaak word.
- **Herbetreding:** Tensy beskermende klere gedra word, moet die behandelde gebied nie betree word nie, alvorens die spuitmengsel droog is nie.
- **Lugbespuiting:** Stel al die inwoners in die onmiddellike omgewing van die gebied wat behandel gaan word in kennis en reik die nodige waarskuwings uit. Moenie oor aangrensende gebiede of water spuit of die spuitnewel daarheen laat oorwaai nie.

Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie. Die werking en doeltreffendheid daarvan kan beïnvloed word deur faktore soos abnormale grond-, klimaats- en bergingstoestande; kwaliteit van verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui word 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 invloede 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 die geval van enige onsekerheid.

## VOORSORGMAATREËLS

- Vermy die inaseming van dampe en sproeinewel. 'n Gesigmasker met respirator moet tydens bespuiting gedra word.
- Verhoed vel- en oogkontak deur beskermde klere soos rubberhandskoene, stewels en gesigskerm te dra wanneer die produk hanteer of toegedien word.
- In geval van oogkontak, hou oogledle oop en spoel vir 15 minute met lopende varswater. Kry mediese hulp indien irritasie voortuur.
- Moenie eet, drink of rook tydens vermenging of toediening of voordat hande en gesig gewas is en skoon klere aangetrek is nie.
- Was hande, arms en gesig deeglik met seep en water na gebruik asook in die geval van toevallige aanraking met vel.
- Verhoed wegdrywing van die sproeinewel na ander gewasse, weidings, riviere, damme of ander gebiede wat nie behandel word nie.
- Maak toerusting voor en na gebruik skoon. Gooi die waswater weg waar dit nie gewasse, weidings, riviere, damme, boorgate of ander waterbronne sal besoedel nie.
- Moet NIE op gebiede waar oppervlakwater sigbaar is, aanwend nie.
- Verhoed besoedeling van voedsel, voer, drinkwater en eetgerei.
- Leë houers moet drie keer uitgespoel word soos volg: Keer die leë houer om oor die sputtenk of mengbak en dreineer vir minstens 30 sekondes nadat die vloeistof gedrup verminder het. Spoel die houer daarna drie keer uit met 'n volume water gelykstaande aan 'n minimum van 10% van die houer. Gooi die spoelwater by die inhoud van die sputtenk voordat die houer op die voorgeskrewe wyse vernietig word.

- Vernietig leë houers deur gate daarin te maak, plat te slaan, en op 'n veilige manier daarvan ontslae te raak.
- Moet NIE riviere met leë houers besoedel nie. Leë houers moet nie verbrand word nie.
- Moet NIE die houer vir enige ander doel gebruik nie.

## METODE VAN WERKING

**EPIC Xtra** is 'n suspensie konsentraat formulering wat die aktiewe bestanddele epoksikonasool en karbendasim bevat wat onderskeidelik tot die chemiese groepe triasool en bensimidasool behoort. Epoksikonasool inhibeer die C-14-demetylase (ensiem) in steroolbiosintese. Karbendasim beweeg akropetaal en reageer sistemies deur die inhibering van beta-tubuliensintese. Hierdeur word miseliumgroei, kiembuis- en appressoria-ontwikkeling geïnhibeer. **EPIC Xtra** het voorkomende sowel as genesende aksie.

## WEERSTANDSBESTUUR

Vir weerstandsbestuur is **EPIC Xtra** 'n groepkode 1 en 3 swamdoder. Enige swampopulasie mag individue bevat wat natuurlike weerstand teen **EPIC Xtra** of enige ander groepkode 1 en 3 swamdoders het. Die weerstandbiedende individue kan uiteindelik die siektelepopulasie oorheers as hierdie swamdoder herhaaldelik aangewend word. Hierdie weerstandbiedende swamme sal waarskynlik nie deur **EPIC Xtra** of enige ander groepkode 1 en 3 swamdoder beheer word nie.

### Om weerstand teen swamdoders te vertraag

- Vermy die eksklusieve, herhaaldelike gebruik van swamdoders met dieselfde groepkode. Wissel af (of gebruik tenkmengsels) met geregistreerde produkte in verskillende swamdodergroepkodes.
- Sien toepaslike individuele produktikette wanneer daar tussen produkte of tenkmengsels met geregistreerde produkte afgewissel word.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in siekte beheerprogramme.

Aangesien die voorkoms van weerstandbiedendheid moeilik is om te bepaal, is dit uiters belangrik om die behandelde gebiede noukeurig te ondersoek. Indien die behandeling nie effektief was na die gebruik van **EPIC Xtra** soos aanbeveel nie, mag daar 'n weerstandbiedende-populasie teenwoordig wees. Indien so 'n weerstandbiedende-populasie positief geïdentifiseer word, moet daar onmiddellik 'n swamdoderbesuiting wat 'n ander werkswyse het, waar daar geen bewys van weerstand teen die siekte voorkom, gedoen word. Meridian Agrochemical Company (Edms.) Bpk. handeldrywend as Meridian Agritech sal geen verantwoordelikheid aanvaar vir enige gebrek aan prestasie in die geval van die opbou van siekteweerstand as gevolg van onvoldoende weerstandsbestuurspraktyke soos aangedui op die etiket nie.

Vir spesifieke inligting oor weerstandsbestuur kan die registrasiehouer van hierdie produk gekontak word of die FRAC webwerf by <http://www.frac.info/frac/index.html> besoek word.

## GEBRUIKSBEPERKINGS

- **EPIC Xtra** moet verkieslik as 'n beskermende en voorkomende behandeling toegedien word, alvorens siekte/s gevestig is.
- Moet nie **EPIC Xtra** toedien op enige gewas of situasie wat nie op hierdie etiket verskyn nie.
- Moet nie hierdie produk in kombinasie of tenkmengsel met enige ander produk of landboumiddel gebruik wat nie spesifiek op hierdie etiket gelys is nie. Meridian Agrochemical Company (Edms.) Bpk. aanvaar geen verantwoordelikheid vir enige negatiewe gevolge indien die instruksies op die etiket nie nagekom word nie, tensy 'n Meridian Agritech verteenwoordiger vooraf geraadpleeg is.
- Indien **EPIC Xtra** in 'n tenkmengsel met ander aanbevole produkte gebruik word, moet oorweging aan die beperkings van daardie betrokke produkte geskenk word.

## GEBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

## MENGINSTRUKSIES

Vul die spuittenk halfvol met skoon water. Moenie brakwater gebruik nie. Terwyl geroer word, voeg die aanbevole hoeveelheid **EPIC Xtra** by die spuitwater en vul die tenk tot verlangde volume. Verseker dat die tenkmengsel voor besuiting goed vermeng is en dat roering deurgaans tydens besuiting plaasvind. By die gebruik van **EPIC Xtra** in tenkmengsels, moet volle kennis van al die waarskuwings, voorsorgmaatreëls en gebruiksaanwysings op die etiket van daardie spesifieke produk gedra word. Eerstens, moet klein hoeveelhede van die produktes afsonderlik met water gemeng word. Kyk vir tekens van onverenigbaarheid soos flokkulasie, ens. **Tenkmengsels moet onmiddellik uitgespuit word en nie toegelaat word om in die spuittenk oornag te staan nie.** Indien

bespuiting onderbreek word, moet verseker word dat die tenkmengsel behoorlik geroer word voor die aanvang van die bespuiting.

## VERENIGBAARHEID

Die verenigbaarheid van **EPIC Xtra** met ander produkte hang van die formulerings van die betrokke produkte, asook die kwaliteit van die spuitwater wat gebruik word, af. Soos formulerings van tyd tot tyd verander, word daar aanbeveel om eers 'n fisiese verenigbaarheidstoets te doen, alvorens 'n tenkmengsel gemaak word. Meridian Agrochemical Company (Edms.) Bpk. kan nie aanspreeklik gehou word vir gewasskade deur tenkmengsels met produkte en formulerings wat nie getoets is nie.

## TOEDIENINGSMETODES

### Grondtoediening

**EPIC Xtra** kan toegedien word met enige medium- tot hoë-volume spuittoerusting wat toegerus is met 'n doeltreffende roermeganisme wat egale bedekking van die teikengebied sal verseker. Verseker dat die spuittoerusting korrek gekalibreer is en dat dit gereeld gedurende die spuitproses nagegaan word om te verseker dat die korrekte dosis toegedien word. Slegs skoonwater moet gebruik word.

### Lugtoediening

Lugtoediening mag slegs deur 'n geregistreerde lugbespuitingsoperator met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS Kode 10118 (Aerial Application of Agricultural Remedies) gedoen word. Dit is belangrik om te verseker dat die spuitmengsel eweredig oor die teikenarea versprei word en dat die verlies aan spuitmengsel tydens toediening tot 'n minimum beperk word. Dit is dus belangrik om aan die volgende kriteria te voldoen:

#### Toerusting

- Gebruik geskikte atomiseringsapparaat wat die vereiste druppelgrootte en bedekking sal produseer, maar wat die minste verlies van produk deur wegdrywing sal verseker.
- Die operator moet 'n spuitkopstelsel opstel wat 'n druppelspektrum met die kleinste moontlike relatiewe span sal produseer.
- Al die spuitkoppe en atomiseerders moet in die binneste 60 - 75% van die vlerkspan geplaas word om te verhoed dat die die druppels binne-in die vlerkvorteeks beweeg.

#### Toedieningsparameters

- 'n Minimum volume van 30 - 40 ℓ spuitmengsel per hektaar word aanbeveel. Aangesien hierdie produk nie teen 'n verlaagde volume getoets is nie, kan die registrasiehouer nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige nadelige effek indien hierdie produk teen 'n laer volume as hierbo aanbeveel, uit die lug toegedien word nie.
- 'n Druppelbedekking van 25 - 35 druppels per vierkante cm moet op die teikenarea herwin word.
- 'n Druppelspektrum met 'n VMD van 280 - 300 mikron word aanbeveel. Verseker dat die produksie van fyndruppels (kleiner as 150 mikron) tot 'n minimum beperk word.
- Die hoogte van die spuitbalk moet op 3-4 meter bokant die teiken gehandhaaf word.
- Moet nie spuit wanneer die vliegtuig besig is om te klim, te draai, te duik, of terwyl dit uitklim nie.

#### Meteorologiese toestande

- Die verskil tussen die nat- en droëbollesing, soos met 'n swaaihigrometer bepaal, moet nie 8°C oorskry nie.
- Moenie tydens turbulente, onstabiele en droë toestande, of gedurende die hitte van die dag wanneer stygende en dalende konveksie-windbewegings plaasvind, toedien nie.
- Moenie tydens temperaturinversie-toestande (deur bokant of binne-in die inversielaaq te spuit) en/of gedurende hoë humiditeitstoestande toedien nie, aangesien dit kan lei tot:
  - i. Verlaagde effektiwiteit a.g.v. suspensie of verdamping van klein druppels in die lug (wat tot onvoldoende bedekking op teiken lei).
  - ii. Skade aan ander sensitiewe gewasse en/of nie-teikenareas deur wegdrywing van die spuitwolk vanaf die teikenarea.
- Moet nie spuit wanneer die windsspoed 15 km per uur oorskry nie.

### Algemeen

- Verseker dat die lande akkuraat gemerk is en dat die spuitoperator presies weet watter lande bespuit moet word. Dui aangrensende omgewingsensitiewe gebiede of sensitiewe naburige gewasse, byekorwe of waterbronne wat deur die plaagdoder beïnvloed kan word, aan.
- **Verkry 'n versekering van die lugbespuitingsoperator dat daar aan die bogenoemde vereistes voldoen sal word en dat die betrokke data in 'n logboek vir toekomstige verwysing saamgevat sal word.**

### AANBEVELINGS

GEWAS & SIEKTE	DOSIS	OPMERKINGS
<b>GARS</b>		
<b>Bruinroes (Blaarroes)</b> ( <i>Puccinia hordei</i> )	0.8 – 0.9 ℥/ha	Begin met toediening sodra eerste tekens van infeksie waargeneem word en herhaal toediening 3 - 5 weke later indien nodig. <b>Grondtoediening:</b> Dien toe in 200 – 400 ℥ water/ha. <b>Lugtoediening:</b> Dien toe in 30 – 40 ℥ water/ha.
<b>Blaarvlek</b> ( <i>Rhynchosporium secalis</i> )	0.8 ℥/ha	Begin met toediening sodra infeksie waargeneem word tussen die 7-blaarstadium en vlagblaarstadium. <b>Grondtoediening:</b> Dien toe in 200 – 400 ℥ water/ha. <b>Lugtoediening:</b> Dien toe in 30 – 40 ℥ water/ha.
<b>Witroes</b> ( <i>Erysiphe graminis</i> )	0.8 ℥/ha	Begin met toediening sodra eerste tekens van infeksie waargeneem word en herhaal toediening 3 - 5 weke later indien nodig. <b>Grondtoediening:</b> Dien toe in 200 – 400 ℥ water/ha.
<b>GRONDBONE</b>		
<b>Vroeë blaarvlek</b> ( <i>Cercospora arachidicola</i> )	0.4 ℥/ha	<b>Grondtoediening:</b> Dien toe in 500 ℥ water/ha. Begin met toediening sodra eerste tekens van infeksie waargeneem word en herhaal toediening met sputintervalle van 10 – 14 dae solank weersomstandighede klam en warm bly. <b>Lugtoediening:</b> Dien toe in 30 – 40 ℥ water/ha.
<b>Bruinroes</b> ( <i>Puccinia arachidis</i> )	0.4 ℥/ha 0.5 ℥/ha	<b>Grondtoediening:</b> Dien toe in 500 ℥ water/ha. Begin met toediening sodra eerste tekens van infeksie waargeneem word en herhaal toediening met sputintervalle van 10 – 14 dae solank weersomstandighede klam en warm bly. <b>Lugtoediening:</b> Dien toe in 30 – 40 ℥ water/ha.
<b>MIELIES</b>		
<b>Noordelike blaarskroei</b> ( <i>Setosphaeria turcica</i> )	1.0 – 1.2 ℥/ha + Geskikte geregistreerde byvoegmiddel (soos H&R Crop Oil)	Begin toediening met eerste tekens van infeksie op die onderste 4 tot 5 blare of voordat infeksievlake 5% blaarskroei bereik. Indien nodig, herhaal toediening 3 – 4 weke later. <b>Grondtoediening:</b> Dien toe in 500 ℥ water/ha.
<b>Gewone roes</b> ( <i>Puccinia sorghi</i> )		
<b>Grysblaarvlek</b> ( <i>Cercospora zeae-maydis</i> )	1.0 – 1.2 ℥/ha	Begin toediening met eerste tekens van infeksie op die onderste 4 tot 5 blare of voordat infeksievlake 5% blaarvlek bereik. Indien nodig, herhaal toediening 3 – 4 weke later. Gebruik die hoër dosis in gevalle waar gevoelige kultivars en/of hoë siektedruk voorkom.

		<b>Grondtoediening:</b> Dien toe in 200 - 500 ℓ water/ha. <b>Rugsak met handbalk:</b> Dien toe in 50 – 60 ℓ water/ha. <b>Lugtoediening:</b> Dien toe in ten minste 40 ℓ water/ha.
<b>KORING</b>		
<b>Blaarroes</b> ( <i>Puccinia recondita</i> )	0.8 – 0.9 ℓ/ha	Dien sodra infeksie waargeneem word toe en herhaal 3 – 5 weke later indien nodig. <b>Grondtoediening:</b> Dien in 200 – 400 ℓ water/ha toe. <b>Lugtoediening:</b> Dien in 30 – 40 ℓ water/ha toe.
<b>Oogvlek</b> ( <i>Pseudocercosporaella herpotrichoides</i> )	0.8 – 1.0 ℓ/ha	Dien tussen die 5 en 7 blaarstadium toe. <b>Grondtoediening:</b> Dien in 200 – 400 ℓ water/ha toe. <b>Lugtoediening:</b> Dien in 30 – 40 ℓ water/ha toe.
<b>Vaalblaar en Bruinaarsiekte</b> ( <i>Septoria spp.</i> )	0.9 – 1.0 ℓ/ha	Dien tussen die 5 en 7 blaarstadium toe, of sodra die eerste tekens van infeksie waargeneem word. <b>Grondtoediening:</b> Dien in 200 – 400 ℓ water/ha toe. <b>Lugtoediening:</b> Dien in 30 – 40 ℓ water/ha toe.
<b>Geelroes (Streeproes)</b> ( <i>Puccinia striiformis</i> )	0.9 – 1.0 ℓ/ha	Dien sodra infeksie waargeneem word toe en herhaal 3 – 5 weke later indien nodig. <b>Grondtoediening:</b> Dien in 200 – 400 ℓ water/ha toe. <b>Lugtoediening:</b> Gebruik die hoër dosis en dien in 30 – 40 ℓ water/ha toe.

#### ERKENNING VAN HANDELSMERKE

H&R Crop oil (L 6802)

H&R South Africa Sales (Edms.) Bpk.