

FUSION


BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY

GEbruiksAANwysings INGESLUIT
Lotnommer
Datum van vervaardiging

VERWYS NA BESONDERHEDE
SOOS OP HOUER / SAK GEDRUK

FUSION

FUNGICIDE



Reg. No. L10133, Act/Wet No. 36 of/van 1947 1: 08/09/2016


A water dispersible granule fungicide for the control of diseases on crops as listed.

'n Waterdispergeerbare korrel swamdoder vir die beheer van siektes op gewasse soos aangedui.

FRAC FUNGICIDE GROUP CODE	27;11	FRAC SWAMDODER GROEPKODE
ACTIVE INGREDIENTS / AKTIEWE BESTANDELE		
Cymoxanil (ethyl urea)	250 g/kg	Simoksaniil (etielurea)
Famoxadone (oxazolidinedione)	250 g/kg	Famoksadoon (oksasolidiendioon)

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


5kg




UN Number: 3077

DIRECTIONS FOR USE ENCLOSED
Batch Number
Date of manufacture

REFER TO DETAILS AS PRINTED
ON CONTAINER / BAG



CAUTION / VERSIGTIG



.WARNINGS

Allow the following number of days between last application and harvest.

Potatoes.....7 days

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

- Handle with care.
- Harmful if swallowed. Danger of serious damage to health with repeated exposure.
- Store in the original, tightly closed container in an access controlled, dry and well-ventilated area.
- Store away from food, feed and drinking water.
- Keep away from children, uninformed persons and animals.
- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- Keep away from sources of heat and ignition.
- Protect against dust forming conditions, humid air and water.
- **FUSION** 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 **FUSION** 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 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 dust or spray mist.
- Do not eat, drink or smoke while preparing or applying the spray mix, or before washing face and hands and changing clothing.
- 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 use and immediately after application. Dispose of wash water where it will not contaminate crops, pastures, rivers, dams or other water sources.
- Do NOT apply to areas where surface water is present.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Do NOT reuse spilled material.
- Containers must be emptied completely before disposal. Shake the container into the spray tank until the container is empty. Destroy empty containers by perforating and flattening before disposal according to local regulations, preferably by an approved chemical waste disposal/incineration facility or landfill. Do NOT contaminate rivers by disposal.
- Do NOT reuse the empty container.

MODE OF ACTION

FUSION is a water dispersible granule formulation containing the active ingredients cymoxanil and famoxadone. Cymoxanil has preventative and curative action, is locally systemic and acts by inhibiting sporulation. A quinone outside inhibitor, famoxadone has preventative and residual action in inhibiting mitochondrial electron transport thereby inhibiting spore germination and formation. **FUSION** is active against late blight strains that are resistant to phenylamide fungicides.

RESISTANCE MANAGEMENT

For resistance management, **FUSION** contains active ingredients which are part of fungicide group codes 11 and 27. Any fungus population may contain individuals naturally resistant to **FUSION** and other group code 11 or 27 fungicides. The resistant individuals can eventually dominate the disease population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **FUSION** or any other group code 11 and 27 fungicides.

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 **FUSION** 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 compared to those 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

- Apply **FUSION** preventatively or early in the infection cycle before symptoms develop. Ensure good spray coverage of the treated crop.
- Avoid applying **FUSION** when crops are under stress as a result of drought, low temperature, waterlogged soil, insect attack, nutrient deficiency or other factors negatively affecting crop growth as this may cause a phytotoxic response.
- Do not apply **FUSION** 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 **FUSION** is used in a tank mix with other recommended products, consideration should be given to the restrictions of those respective products.
- All applications must be made with suitable spray equipment that is in good working order and correctly calibrated to ensure the desired coverage for that particular method of application is achieved.

DIRECTIONS FOR USE

Use only as directed.

MIXING INSTRUCTIONS

Ensure the mixing and/or spraying equipment is clean. Measure the required amount of **FUSION** volumetrically or by weighing. A standard, calibrated volumetric cylinder or jug, measured to the 200 ml mark is approximately equivalent to 100g of **FUSION**. A variance of 10% can be expected when measuring **FUSION** volumetrically. Half fill the spray tank with clean water. Do not use brackish water. Whilst agitating, add the recommended amount of **FUSION** and continue filling the tank to the required

volume. Maintain agitation throughout application. When using **FUSION** 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

FUSION is compatible with **Solsan SC** (L 9590) and H&R Crop Oil (L 6802). The compatibility of **FUSION** 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. Do not tank mix with products that may cause an alkaline reaction. 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

FUSION 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 of **FUSION** is permitted as part of a weekly, preventative spray programme provided the target area is evenly covered with the spray mixture. 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 narrowest possible swath width should be used for all applications.
- 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 at least 40 ℓ spray mixture per ha is recommended for application on potatoes. 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 40 – 50 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 4m 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
<p>POTATOES</p> <p>Late blight <i>Phytophthora infestans</i></p> <p>Early blight <i>Alternaria solani</i></p>	<p style="text-align: center;">GROUND APPLICATION</p> <p style="text-align: center;">500 g/ha FUSION + 1.5 l/ha Solsan SC (L 9590) + 500 ml/ha H&R Crop Oil (L 6802)</p> <p style="text-align: center;">AERIAL APPLICATION</p> <p style="text-align: center;">600 g/ha FUSION + 1.5 l/ha Solsan SC (L 9590) + 500 ml/ha H&R Crop Oil (L 6802)</p>	<p>A preventative late blight and early blight spray programme should be followed at all times. Apply FUSION at any crop growth stage when conditions favour late blight infection i.e. cool, overcast weather with high moisture from rain or irrigation. SEE 'NOTES' BELOW. Apply FUSION as a full cover in 500 – 1 500 l water/ha based on the size of the crop. Repeat applications at 7 – 10 day intervals as part of a protective programme. Use the shorter interval under conditions of high disease pressure for early blight or late blight. Use FUSION in two or three block sprays in a preventative late blight spray programme. Under moderate early blight disease pressure, the recommended FUSION tank mixture can be alternated with the maximum registered dose rate of a suitable contact fungicide.</p> <p>If tractor application is not possible, aerial application of FUSION should adhere to the following conditions:</p> <p>For the control of early and late blight, aerial application of FUSION is only recommended in a weekly preventative spray programme before infection has occurred. Commence applications shortly after the crop has emerged. Use a spray volume of at least 40l/ha.</p> <p>NOTE Due to the reduced crop coverage resulting from aerial application versus ground application, reduction in disease control of early and late blight may result.</p> <p>General: Do not apply more than 5 or 3 block applications of TANOS per season. Alternate with other fungicides that have a different mode of action throughout the season. The addition of H&R Crop Oil to the spray mixture is recommended in all situations.</p>

NOTES

FUSION has curative properties against late blight for up to 2 days. Thus, **FUSION** can control the fungus within the plant after infection has taken place **BUT** only before symptoms of late blight develop. Symptoms of late blight typically develop 2 – 3 days after infection has taken place but late blight symptoms on stems only become prevalent after 10 – 14 days. As a result curative action of **FUSION** on stem blight cannot be expected under all conditions. **FUSION** should not be used for eradication of late blight control when symptoms, particularly stem symptoms, are visible in the crop canopy.

ACKNOWLEDGEMENT OF TRADEMARKS

H&R Crop Oil (L 6802)
Solsan SC (L 9590)

H&R South Africa Sales (Pty) Ltd
Meridian Agrochemical Company (Pty) Ltd

WAARSKUWINGS

Laat die volgende aantal dae toe tussen laaste toediening en oes.

Aartappels..... 7 dae

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

- Hanteer versigtig
- Skadelik indien ingeneem word. Gevaar van ernstige gesondheidskade met herhaaldelike blootstelling.
- Bêre in die oorspronklike, dig toegemaakte houer, in 'n veilige, droë en goed geventileerde plek.
- Bêre weg van voedsel, voer en drinkwater.
- Hou buite bereik van kinders, ongeligte persone en diere.
- Baie giftig vir waterorganismes en mag in die langtermyn nadelige gevolge vir die waterlewe inhou.
- Hou buite bereik van bronne wat hitte en vonke veroorsaak.
- Verhoed blootstelling van die produk aan stowwerige omstandighede, vogtige lug en water.
- **Fusion** is sonder enige fitotoksisiteitskade op die meeste belangrike kommersiële kultivars getoets. Meer sensitiewe kultivars mag in die toekoms vrygestel word en dan moet **FUSION** eers op klein skaal getoets word, alvorens groot kommersiële bespuitings gemaak word.
- **Herbetreding:** Moenie behandelde gebied betree alvorens spuitneerslag droog is nie, tensy beskermende oorklere gedra word.
- **Lugtoediening:** Stel alle persone in die onmiddellike omgewing van die gebied wat behandel gaan word in kennis en reik die nodige waarskuwings uit. Moenie aangrensende gebiede of waterbronne bespuit of toelaat dat die spoeinewel daarheen 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 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 siektes 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.

VOORSORGMAREËLS

- Vermyn inaseming van spuitnewel.
- Moet nie eet, drink of rook tydens toediening, vermenging of voordat hande en gesig gewas is en klere verwissel is nie.
- Was hande, arms en gesig deeglik met seep en water na gebruik en na toevallige velkontak.
- Verhoed wegdrywing van die spuitnewel na ander gewasse, weidings, riviere, damme en ander gebiede wat nie onder behandeling is nie.
- Maak toerusting voor en direk na gebruik skoon. Waswater moet uitgegooi word waar dit nie gewasse, weidings, riviere, damme of ander waterbronne sal besoedel nie.
- Moet NIE toedien op gebiede waar oppervlakwater teenwoordig is nie.
- Moet nie voedsel, voer, drinkwater of eetgerei besoedel nie.
- Houers moet heeltemal leeggemaak word voordat dit vernietig word. Skud houer in die spuittenk uit totdat houer leeg is. Vernietig leë houers deur gate daarin te maak en dit plat te maak en vernietig dit volgens die plaaslike riglyne. Verkieslik deur 'n goedgekeurde chemiese afvalverwyderings/verbrandingsfasiliteit of stortingsterrein. Moet NIE riviere met afvalhouers besoedel nie.
- Moet NIE leë houers hergebruik nie.

METODE VAN WERKING

FUSION is 'n waterdispergeerbare korrel (granulêre) formulering wat die aktiewe bestanddele simoksaniel en famoksadoon bevat. Simoksaniel het voorkomende en genesende eienskappe, is lokaal sistemies en inhibeer spoorvorming. Die kinoon buite-inhibeerder, famoksadoon, het 'n voorkomende en nawerkende aksie deurdat dit die elektronvervoer in die mitochondria inhibeer en gevolglik spoorvorming en spoorontkieming inhibeer. **FUSION** is aktief teen laatroesstamme wat weerstandbiedend is teen fenielamied-swamdoders.

WEERSTANDBESTUUR

Vir weerstandsbestuur bevat **FUSION** aktiewe bestanddele wat tot die swamdodergroepkode 27 en 11 behoort. Enige swampopulasie mag individue hê wat 'n natuurlike weerstand teen **FUSION** en ander groepkode 27 en 11 swamdoders het. Die weerstandbiedende individue kan uiteindelik die swampopulasie domineer indien hierdie swamdoders aanhoudend gebruik word. Hierdie weerstandbiedende swamme mag dalk nie deur **FUSION** of ander groepkode 27 en 11 swamdoders beheer word nie.

Om weerstandbiedendheid te verdraag:

- Vermy die eksklusiewe en herhaaldelike gebruik van swamdoders in dieselfde swamdodergroepkode. Wissel af of maak tenkmengsels met swamdoders van ander swamdodergroepkodes.
- Raadpleeg individuele produketikette wanneer afwisselende produkte gebruik word of wanneer geregistreerde produkte as tenkmengsels gebruik word.
- Integreer ander beheermetodes (chemies, verbouing, biologies) in siektebeheerprogramme.

Aangesien die voorkoms van weerstandbiedendheid moeilik is om te bepaal, is dit uiters belangrik om die behandelde gewasse noukeurig te ondersoek. Indien die behandeling nie effektief was met die gebruik van **FUSION** nie, mag daar 'n weerstandbiedende-populasie teenwoordig wees. Indien so 'n weerstandbiedende-populasie positief geïdentifiseer word, moet daar onmiddellik 'n swamdoderbespuiting wat 'n ander werkswyse het, waar daar geen bewys van weerstand teen die siekte voorkom, gedoen word. Meridian Agrochemical Company (Edms.) Bpk. 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

- Dien **FUSION** voorkomend of in die vroeë infeksiesiklus toe, voordat simptome ontwikkel. Verseker deeglike bedekking van die behandelde gewas..
- Vermy toediening van **FUSION** onder stremmingstoestande a.g.v. droogte, lae temperature, vesuippte gronde, erge insekskade, voedingstekorte of enige faktore wat gewasgroeï nadelig beïnvloed, want dit mag 'n fitotoksiese reaksie veroorsaak.
- Moet nie **FUSION** op enige gewas of situasie aanwend wat nie in die voorskrijetiket 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 verteenwoordiger vooraf geraadpleeg is.
- Indien **FUSION** in 'n tenkmengsel met ander aanbevole produkte gebruik word, moet oorweging aan die beperkings van hierdie betrokke produkte geskenk word.
- Alle toedienings moet met geskikte spuittoerusting gedoen word wat in 'n goeie werkende toestand is en korrek gekalibreer is om te verseker dat die verlangde bedekking vir die spesifieke toedieningsmetode verkry word.

GEBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

MENGINSTRUKSIES

Maak seker dat die meng- en spuitapparaat skoon is. Die verlangde hoeveelheid **FUSION** kan of volumetries afgemeet of deur 'n skaal afgeweg word. 'n Standaard volumetries gekalibreerde maatbeker of maatsilinder, gevul met **FUSION** tot by die 200ml merk is ongeveer gelykstaande aan 100g **FUSION**. 'n Afwyking van 10% kan verwag word indien **FUSION** volumetries afgemeet word. Maak die spuitenk halfvol met skoon water. Vermy brakwater. Aktiveer die roerder en voeg die verlangde hoeveelheid **FUSION** by terwyl die tenk tot verlangde volume water gevul word. Roering moet deurgaans tydens bespuiting plaasvind. Indien **FUSION** as tenkmengsels met ander produkte gebruik word, moet aandag aan al die waarskuwings, voorsorgmaatreëls en gebruiksaanwysings op daardie spesifieke produk etiket gegee word. Eerstens moet klein hoeveelhede van die produkte apart met water gemeng word. Let op vir enige tekens van onverenigbaarheid soos flokkulasie ens. **Tenkmengsels moet onmiddellik uitgespuit word en nie toegelaat word om in die spuitenk oornag te staan nie.** Indien bespuiting onderbreek word, moet deeglike roering plaasvind voordat daar met bespuiting voortgegaan word.

VERENIGBAARHEID

FUSION is verenigbaar met **Solsan SC** (L 9590) en H&R Crop Oil (L 6802). Die verenigbaarheid van **FUSION** met ander produkte sal van die formulerings van die onderskeie produkte afhang, asook van die kwaliteit van die spuitwater wat gebruik word. Soos formulerings van tyd tot tyd verander, is dit raadsaam om eers 'n fisiese verenigbaarheidstoets te doen voordat tenkmengsels gemaak word. Moet nie in tenkmengsels met produkte wat 'n alkaliese reaksie veroorsaak gebruik nie. Meridian Agrochemical Company (Edms.) Bpk. kan nie verantwoordelik gehou word vir skade aan gewasse a.g.v. tenkmengsels met produkte of formulerings wat nie getoets is nie.

TOEDIENINGSMETODES

Grondtoediening

FUSION kan met enige geskikte medium of hoë-volume spuitapparaat toegedien word, mits dit toegerus is met 'n doeltreffende roermeganisme wat die spuitmengsel eweredig oor die teikengebied versprei. Kalibreer die apparaat alvorens gespuit word en gereelde kontrole-toetse moet gedoen word om te verseker dat die korrekte dosis toegedien word. Gebruik slegs skoon water.

Lugtoediening

Die lugtoediening van **FUSION** is toelaatbaar as dit deel vorm van 'n weeklikse voorkomende spuitprogram waar die teikengebied eweredig met die spuitmengsel bedek word. Lugtoediening mag slegs deur 'n geregistreerde lugbespuitingsoperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS Kode 10118 (Aerial Application of Agricultural Pesticides) 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 nouste rywydte moet met alle toedienings gebruik word.
- Die operateur moet 'n spuitkopstelsel opstel wat 'n druppelspektrum met die kleinste moontlike relatiewe spanwydte sal produseer.
- Al die spuitkoppe en atomiseerders moet in die binneste 60 - 75% van die vlerkspan geplaas word om te verhoed dat die druppels binne-in die vlerkvorteks inbeweeg.

Toedieningsparameters

- 'n Minimum volume van 40 l spuitmengsel per hektaar op aartappels 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 40 - 50 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 fyn druppels (kleiner as 150 mikron) tot 'n minimum beperk word.
- Die hoogte van die spuitbalk moet tussen 3 en 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.

Metereologiese Toestande

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

Algemeen

- Verseker dat die lande akkuraat gemerk is en dat die spuitoperateur presies weet watter lande bespuit moet word. Dui aangrensende omgewings sensitiewe areas of sensitiewe naburige gewasse, byekorwe of waterbronne wat deur die swammiddel geaffekteer kan word, aan.
- Verkry 'n versekering van die lugbespuitingsoperateur 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 EN SIEKTE	DOSIS	OPMERKINGS
AARTAPPELS Laatroes <i>Phytophthora infestans</i> Vroeë Roes <i>Alternaria solani</i>	<p style="text-align: center;">GRONDOEDIENING</p> <p style="text-align: center;">500 g/ha FUSION + 1.5 l/ha Solsan SC (L 9590) + 500 ml/ha H&R Crop Oil (L 6802)</p> <p style="text-align: center;">LUGTOEDIENING</p> <p style="text-align: center;">600 g/ha FUSION + 1.5 l/ha Solsan SC (L 9590) + 500 ml/ha H&R Crop Oil (L 6802)</p>	<p>'n Voorkomende laat- en vroeë roes program moet ten alle tye gevolg word. Dien FUSION op enige plantgroeistadium toe sodra omgewingstoestande gunstig raak vir laatroesinfeksie (koel, bewolkte weer met gepaardgaande reën of besproeiing). SIEN "NOTA" HIERONDER. Dien FUSION as 'n volle dekbespuiting in 500 – 1 500 l water/ha afhangend van die gewasgrootte toe. Herhaal toedienings met 7 – 10 dae intervalle as deel van 'n voorkomende program. Gebruik die korter spuitinterval in omstandighede met hoë vroeë - en laatroes siektedruk. Gebruik FUSION in twee of drie blokbespuitings in 'n laatroesspuitprogram. In matige vroeë roes siektedruk gevalle word aanbeveel dat die FUSION tenkmengsel met die maksimum geregistreerde dosis van 'n geskikte kontakswamdoder afgewissel word.</p> <p>Indien trekkertoediening nie moontlik is nie, moet lugbespuiting met FUSION aan die volgende voorwaardes voldoen: Lugbespuiting met FUSION teen vroeë- en laatroes word slegs aanbeveel wanneer dit in 'n weeklikse voorkomende spuitprogram voordat infeksie voorkom, plaasvind. Toedienings moet op 'n vroeë stadium, net na opkoms, begin. Gebruik 'n spuitvolume van ten minste 40l/ha.</p>

		<p>NOTA: Aangesien swakker gewasbedekking met lugtoediening as met grondtoediening verkry word, kan verlaagde siektebeheer van vroeë- en laatros verkry word.</p> <p>Algemeen: Moet nie meer as 2 of 3 blokbepuitings van FUSION per seisoen doen nie. Gedurende die seisoen moet daar met alternatiewe geregistreerde swamdoders wat verskillende werksywes het, afgewissel word. Die byvoeging van H&R Crop Oil by die spuitmengsel word in alle omstandighede aanbeveel.</p>
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NOTAS

FUSION beskik oor 'n genesende (kuratoriewe) werking van 2 dae teen laatros. Gevolglik kan **FUSION** die swam binne die plant tot 2 dae nadat infeksie plaasgevind het, beheer, **MAAR** slegs voordat laatrossimptome sigbaar word. Simptome van laatros ontwikkel 2 – 3 dae na infeksie, maar laatrossimptome op die plantstamme is eers na 10 – 14 dae sigbaar. Gevolglik kan die genesende werking van **FUSION** op stamros nie onder alle omstandighede verwag word nie. **FUSION** moet nie vir die uitwissende beheer van laatros, veral as die stamsimptome in die blaredak sigbaar is, gebruik word nie.

ERKENNING VAN HANDELSMERKE

H&R Crop Oil (L 6802)
Solsan SC (L 9590)

H&R South Africa Sales (Edms.) Bpk.
Meridian Agrochemical Company (Edms.) Bpk.