

# NATIVO



SEE ENCLOSED PAMPHLET FOR FULL PARTICULARS

Reg. No. L8942 (Act No. 36 of 1947)  
Namibian Reg. No. N-AR 1573

**A systemic suspension concentrate fungicide with mesostemic properties for the control of the diseases mentioned on the crops listed.**

**FUNGICIDE GROUP CODE** Tebuconazole - 3 **SWAMDODERGRROEPKODE**  
Trifloxystrobin - 11

**Active ingredients:**

Tebuconazole (triazole).....200 g/l  
Trifloxystrobin (strobilurin)..... 100 g/l

**REGISTERED BY / GEREGISTREER DEUR:**

Bayer (Pty) Ltd / (Edms) Bpk  
Reg. 1968/011192/07  
P.O. Box/Posbus 143  
Isando

1600 South Africa/Suid-Afrika  
TEL: (OFFICE HOURS) / (KANTOORURE) (011) 921 5911

**IN CASE OF POISONING PLEASE PHONE / IN GEVAL VAN VERGIFTIGING SKAKEL: 0861 555 777**

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**BATCH NUMBER:** See on pack  
**LOTNOMMER:**

**DATE OF MANUFACTURE:** Sien op houer  
**DATUM VERVAARDIG:**

SIEN INGESLOTE PAMFLET VIR VOLLEDIGE BESONDERHEDE

Reg. Nr. L8942 (Wet Nr. 36 van 1947)  
Namibiese Reg. Nr. N-AR 1573

**'n Sistemiese suspensie konsentraat swamdoder met mesostemiese eienskappe vir die beheer van die genoemde siektes op gewasse soos aangedui.**

**Aktiewe bestanddele:**

Tebukonasool (triasool).....200 g/l  
Trifloksistrobien (strobilurien)..... 100 g/l

Bayer

RSA/0318/Nativo 5L/  
Back Booklet Code: 84962074C



# NATIVO



## Fungicide

A systemic suspension concentrate fungicide with mesostemic properties for the control of the diseases mentioned on the crops listed.

contains:  
Tebuconazole (triazole)  
Trifloxystrobin (strobilurin)



**Packaging / Verpakking:**

**5 L**



**CAUTION  
VERSIGTIG**



# Swamdoder



## WAARSKUWINGS:

**AARTAPPELS:** LAAT 14 DAE TOE TUSSEN DIE LAASTE TOEDIENING EN OES.

**BOLGROENTE:** LAAT 21 DAE TOE TUSSEN DIE LAASTE TOEDIENING EN OES.  
(Knoffel, preie en uie)

**GARS:** MOET NIE OES OF BEWEI BINNE 77 DAE NA DIE LAASTE TOEDIENING NIE.

**KOOL GEWASSE:** LAAT 21 DAE TOE TUSSEN DIE LAASTE TOEDIENING EN OES.  
(Brusselse Spruitjies, blomkool, broccoli en kopkool)

**MIELIES:** MOET NIE MIELIES OES BINNE 42 DAE NA DIE LAASTE TOEDIENING NIE EN MOET NIE BEWEI OF DIE PLANTE VAN 'N BEHANDELDE MIELIELAND GEBRUIK AS VOER BINNE 60 DAE NA DIE LAASTE TOEDIENING NIE.

**SOJABONE:** LAAT 32 DAE TOE TUSSEN DIE LAASTE TOEDIENING EN OES

**WORTELS:** LAAT 21 DAE TOE TUSSEN DIE LAASTE TOEDIENING EN OES.

**LET WEL:** Die aanbevole onthoudingsperiode tussen die laaste toediening en oes voldoen aan die lokale residu vereistes maar mag dalk nie voldoen aan die uitvoervereistes nie. Indien die gewas wat behandel moet word vir uitvoerdoeleindes bedoel is, moet die betrokke uitvoerorganisasie geraadpleeg word aangaande MRL vereistes en onthoudingsperiodes. Wanneer hierdie produk gebruik word in ooreenstemming met die aanbevelings hierin uiteengesit, sal die plaaslike MRL nie oorskry word nie. Bayer (Edms.) Bpk. kan egter nie verantwoordelik gehou word vir uitvoergewasse wat die maksimum residuperke van ander lande oorskry nie.

- Kan vermoedelik skadelik wees vir die ongebore kind.
- Uiters giftig vir akwatiese lewe met 'n lang blywende effek.
- Moontlike gevaar vir skade aan die ongebore kind.
- Berg in oorspronklike dig toegemaakte houers in 'n koel droë goed geventileerde vertrek. Bergings temperatuur: bo -5°C en onder 30°C.
- Hou weg van voedsel, drinkgoed en voer.
- Hou buite bereik van kinders, oningeligte persone en diere.
- **HERBETREDING:** Moet nie behandelde gebied betree alvorens die spuitneerslag droog is nie tensy beskermende oorklere gedra word.
- Lugbespuiting: 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 gewasse bespuit of toelaat dat die sproeinewel 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 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 PATOGEEN TEEN DIE BETROKKE MIDDEL SOWEL AS DIE METODE, TYD EN AKKURAAATHEID 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 DIE GEVAL VAN ENIGE ONSEKERHEID.**

## VOORSORGMATREËLS:

- Moet nie dampe of spuitnewel inasem nie.
- Dra beskermende handskoene, oorpak, brille, gesigskerm.
- Was hande en hele liggaam met seep en water na gebruik.
- Was besoedelde klere na gebruik.

- Moet nie eet, drink of rook tydens vermenging of toediening van die produk nie en was hande en gesig alvorens dit gedoen word.
- Voorkom wegdrywing van spuitnewel na ander gewasse, weiveld, riviere, damme, boorgate en plekke wat nie behandel moet word nie.
- Maak toedieningsapparaat skoon na gebruik en raak ontslae van die uitspoelwater waar dit nie gewasse, weiveld, riviere, damme en boorgate kan besoedel nie.
- Voorkom die besoedeling van voedsel, voer, drink water en eetgerei.
- Spoel leë houer drie keer uit met 'n volume water gelyk aan ten minste een tiende van die houer en voeg die uitspoelwater by die inhoud van die spuittenk voordat van die houer op die voorgeskrewe metode ontslae geraak word.
- Vernietig leë houer deur gate daarin te maak en plat te slaan. Moet vir geen ander doel weer gebruik nie.

## WEERSTANDBESTUUR:

**Nativo** is 'n **groepkode 3** (DMI / SBI / Triasool) en **groepkode 11** (Qol) (Strobilurien) swamdoder. Enige swam populasie mag individue insluit wat 'n natuurlike weerstand teen **Nativo** of ander **groepkode 3** en **groepkode 11** swamdoders het. Indien hierdie swamdoders herhaaldelik aangewend word kan die weerstandbiedende individue uiteindelik die swampopulasie oorheers. Hierdie weerstandbiedende swamme mag dalk nie deur **Nativo** of enige ander **groepkode 3** en **groepkode 11** swamdoders beheer word nie. Om die effektiwiteit van **Nativo** te handhaaf, is dit nodig om die ontwikkeling van bestandheid van die swamme teen swamdoders van die triasool en strobilurien groepe te verhoed.

Om swamdoder-weerstand te vertraag:

## Aartappels

- Die toediening van Qol bevattende mensels behoort nie meer as 50% van die totale aantal bespuitings te oorskry nie, insluitende die wat gerig is op vroeë- en laatroes beheer.
- Moet nie meer as 3 opeenvolgende Qol bespuitings toedien nie.
- Moet nie ander strobilurien swamdoders(Qol) of verwante swamdoders in dieselfde program met **Nativo** gebruik nie.

## Gars

- Dien altyd Qol swamdoders toe in mengsels met nie-kruisweerstandbiedende swamdoders.
- Dien 'n maksimum van twee Qol swamdoders per seisoen toe.
- Moet nie die dosis wat op die etiket aanbeveel word verminder nie.
- Voorkom die herhaaldelike gebruik van swamdoders wat tot dieselfde swamdodergroep behoort.
- In geval van tenkmengsels of afwisseling met ander geskikte produkte, verwys na die individuele produk etikette.
- Integreer ander beheermetodes (chemies, verbouing, biologies) met die siektebeheerprogram.
- Moet nie ander strobilurien swamdoders(Qol) of verwante swamdoders in dieselfde program met **Nativo** gebruik nie.

# Swamdoder



## Kool gewasse, Bolgroente en Wortels

- **Nativo** bevat trifloxytrobien, 'n lid van die Qol kruisweerstand groep. Gebruik **Nativo** as deel van 'n Geïntegreerde Gewas Beskerming strategie waarin ander metodes van beheer geïnkorporeer word, insluitend waar toepaslik swamdoders met 'n ander metode van werking.
- Moet nie meer as 3 bespuiting op Brussels spruitjies, kopkool, wortels of preie en meer as 2 bespuitings op broccoli of blomkool doen nie. Verder, in ooreenstemming met die FRAC riglyne vir die voor-vermenging van Qol swamdoders, moet die aantal bespuitings met Qol bevattende produkte nie meer as 50% van die spuitprogram wees nie.

## Mielies

- Moet nie die dosis wat op die etiket aanbeveel word verminder nie.
- Voorkom die herhaaldelike gebruik van swamdoders wat tot dieselfde swamdodergroep behoort.
- In geval van tenkmengsels of afwisseling met ander geskikte produkte verwys na die individuele produk etikette.
- Integreer ander beheermetodes (chemies, verbouing, biologies) met die siektebeheerprogramme.
- Moet nie ander strobilurien swamdoders(Qol) of verwante swamdoders in dieselfde program met **Nativo** gebruik nie.

## Sojabone

- Dien Qol swamdoders toe volgens die vervaardiger se aanbevelings vir die teiken siekte (of kompleks) tydens die spesifieke gewas groeistadium soos aangedui. Effektiewe siektebestuur is krities vir die vertraging van die opbou van weerstandbiedende patoëen populasies.
- Gebruik Qols voorkomend of so vroeg as moontlik in die siekte siklus.
- Gebruik Qols verkieslik in mengsels (mede-formulerings of tenkmengsels) met swamdoders van 'n ander kruis-weerstand groep.

**Vir die nuutste gewas riglyne verwys na die FRAC webtuiste ([www.frac.info/frac/index.htm](http://www.frac.info/frac/index.htm)) OF kontak die registrasiehouer.**

## LUGBESPUITING:

### Mielies, Gars en Sojabone:

- Stel alle inwoners van die onmiddellike gebied wat bespuit gaan word in kennis en reik die nodige waarskuwings uit. Moenie oor water en aangrensende gebiede spuit nie en sorg dat spuitstofwegdrywing nie dergelike gebiede besoedel nie. Verwys na die SANS Gebruikskode vir lugtoediening van landbouchemikalieë.
- Lugbespuiting van **Nativo** mag slegs deur 'n geregistreerde lugbespuitingsoperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS 10118 (Aerial Application of Agricultural Pesticides) gedoen word. Verseker dat die spuitmengsel eweredig oor die teikenarea versprei word, en die verlies aan die spuitmengsel tydens toediening tot 'n minimum beperk word. Dit is daarom belangrik om aan die volgende vereistes te voldoen:
- **Volume:** Spuitmengsel volume van 30 l tot 40 l per 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.
- **Druppel bedekking:** 25 tot 35 druppels per cm<sup>2</sup> moet op die teikenarea herwin word.
- **Druppelgrootte:** 'n Druppelspektrum met 'n VMD van 280 tot 300 mikrons word aanbeveel. Beperk die produksie van druppels kleiner as 150 mikrons (hoë drywing en verdampingspotensiaal) tot 'n minimum.
- **Vlieghoogte:** Handhaaf die hoogte van die spuitbalk bo die teiken op 3 tot 4 meter. Moet nie spuit wanneer die vliegtuig duik, uitklim of draai nie.
- Gebruik geskikte **atomiseringsapparaat** wat die vereiste druppelgrootte en bedekking sal produseer, maar wat die minste verlies van produk sal verseker. Die spuitstelsel moet 'n druppelspektrum produseer met die kleinste moontlike Relatiewe Span.
- Plaas al die atomiseerders in die binneste 60 tot 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/h 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 die volgende probleme aanleiding gee:
  - verlaagde effektiwiteit aangesien die druppels as 'n wolk in die lug bly hang en moontlik verdamp (onvoldoende bedekking op teiken).
  - skade aan nie-teiken gewasse en/of sensitiewe areas as gevolg van wegdrywing van die spuitwolk na nie-teiken areas.
- Verseker dat die lugbespuitingsoperateur presies weet watter lande bespuit moet word.
- Verkry versekering van die lugbespuitingsoperateur dat aan al die bogenoemde vereistes voldoen sal word en dat data van belang in 'n logboek saamgevat is vir toekomstige verwysing.

## GEBRUIKSBEPERKINGS:

- Dien toe volgens goeie landboupraktyke en anti-weerstandbestuur-programme.
- Geen kruisweerstand bestaan tussen die strobilurien en ander chemiese klasse nie bv. DeMethielasieinhibeerders, anilienopirimidiene en fenilpiroole.

**GEBRUIKSAANWYSINGS:** GEBRUIK SLEGS SOOS AANGEDUI.

## VERENIGBAARHEID:

Die verenigbaarheid van **Nativo** met ander produkte kan beïnvloed word deur die formulering van die ander produkte betrokke asook deur die kwaliteit van die water. Aangesien die formulering van ander produkte kan verander sonder die medewete van Bayer (Edms.) Bpk. en die kwaliteit van die water van plaas tot plaas kan varieer, moet 'n fisiese verenigbaarheidstoets altyd uitgevoer word voordat gespuit word.

## Aartappels

**Nativo** is verenigbaar met die volgende swam- en insektdoders:

**Belt** (Reg. Nr. L8860), **Bulldock Beta 125 SC** (Reg. Nr. L7612), **Decis Forte** (Reg. Nr. L6563), **Infinito 687.5 SC** (Reg. Nr. L8470), **Melody Duo 69 WP** (Reg. Nr. L8829) en **Melody Duo 69 WG** (Reg. Nr. L6714) en **Movento** (Reg. Nr. L8559).

## Sojabone

**Nativo** is verenigbaar met die volgende insektdoders:

**Bulldock Beta 125 SC** (Reg. Nr. L7612) en **Decis Forte** (Reg. Nr. L6563).

**Verwys na die onderskeie produktetikette vir die gebruiksaanwysings.**

## MENGINSTRUKSIES:

- Vul die spuittenk halfpad met skoon water.
- Verwyder die filter aan bokant van spuittenk.
- Gooi die verlangde hoeveelheid **Nativo** in die spuittenk en vul dan met die vereiste volume water terwyl voortdurend geroer word.
- MOET NIE **Nativo** as 'n vooraf mengsel aanmaak voordat dit in die tenk gegooi word nie.
- Indien **Nativo** in 'n tenkmengsel kombinasies gebruik moet word, moet u verseker dat u ten volle op hoogte is van al die etiket waarskuwings, voorsorgmaatreëls en aanwysings. Meng eers vooraf klein hoeveelhede van die middels afsonderlik in water. Dit word aanbeveel om die mengsels bymekaar te voeg terwyl dit goed geroer en opgelet word vir enige tekens van nie verenigbaarheid soos bv. flokkulasie ens.
- Hou vol met roering tydens die toedieningsproses en moet nie toelaat die tenkmengsel vir enige tyd nie geroer word nie.
- Verseker dat die spuitmengsel voortdurend in die tenk in roering gehou word gedurende vermenging en toediening.

## Toediening:

Verseker dat die toedieningsapparaat wat gebruik word in goeie werkende toestand is, korrek gekalibreer is en nie gekontamineer is met ander chemiese middels nie. Gebruik die spuitvolumes soos aangedui in die toepaslike tabelle om deeglike bedekking te verseker. Verseker deeglike roering van die mengsel in die spuittenk tydens vermenging en toediening en voorkom dat die mengsel ongeroer staan vir 'n tyd lank.

# Swamdoder

## Invoed van reën op toediening:

Indien dit sou reën binne twee ure na toediening, moet die bespuiting herhaal word.

## TOEDIENINGSTEGNIEKE:

### LUGBESPUITING:

Vervys na lugbespuiting hierbo.

### GRONDTOEDIENING:

**Nativo** mag met konvensionele hoë volume spuitapparaat toegedien word. Kalibreer die spuitapparaat voor toediening om te verseker dat die regte dosis gelewer word. Die verspreiding van die spuitvolume moet egalig oor die teikengebied wees. Verseker goeie bedekking van die hele plant deur genoegsame water en geskikte spuittoerusting te gebruik.

## TOEDIENINGSTABEL:

GEWAS / SIEKTE	TOEDIENINGSHOEVEELHEID	OPMERKINGS
<b>AARTAPPELS</b> Vroeëroes ( <i>Alternaria solani</i> )	<b>GRONDTOEDIENING:</b> 800 ml/ha in 500 ℓ water/ha.  <b>LUGTOEDIENING:</b> 1000 ml/ha toegedien in 30 - 40 ℓ water/ha.	Dien 'n reeks van maksimum 3 bespuitings toe in 'n voorkomende spuitprogram met 'n 7 dae intervalle. Begin die 1ste bespuiting ongeveer 4 weke na volle opkoms (knolinisieëring/blom). <b>Nativo</b> behoort in 'n tenkingsel met 'n geregistreerde laatroesmiddel toegedien te word onder omstandighede wat gunstig is vir die ontwikkeling van laatroes. <b>Nativo</b> behoort NIE meer as 3 maal per seisoen toegedien te word nie EN behoort NIE toegedien te word as die laaste bespuiting van die seisoen NIE. In gevalle waar vroeëroes 'n probleem vroeër of later in die groeiseisoen is, word 'n geskikte swamdoder van 'n ander swamdodergroep aanbeveel.
<b>BOLGROENTE</b> (Knoffel, preie & uie) <i>Alternaria-vlek (Alternaria porri)</i> en Roes ( <i>Puccinia allii</i> )	<b>GRONDTOEDIENING:</b> 1000 ml/ha toegedien in 300 - 500 ℓ water/ha.	Die 1ste bespuiting moet voor siekte ontwikkeling as 'n blaar bespuiting toegedien word (voorkomende beheer). Dien 'n reeks van maksimum 3 bespuitings toe in 'n voorkomende spuitprogram met 21 dae intervalle.
<b>GARS</b> Blaarvlek ( <i>Rhynchosporium secalis</i> )	<b>GRONDTOEDIENING:</b> 500 ml/ha toegedien in 250 - 300 ℓ water/ha.  <b>LUGTOEDIENING:</b> 500 ml/ha toegedien in 30 - 40 ℓ water/ha.	Begin met toediening tydens die heel eerste tekens van die siekte / infeksie. Dien die 2de bespuiting 3 - 4 weke later toe.
Netvlek ( <i>Pyrenophora teres</i> )	<b>GRONDTOEDIENING:</b> 500 ml/ha toegedien in 250 - 300 ℓ water/ha.  <b>LUGTOEDIENING:</b> 500 ml/ha toegedien in 30 - 40 ℓ water/ha.	Begin met toediening tydens die heel eerste tekens van die siekte / infeksie of tydens die eerste Node stadium (BBCH 31). Dien die 2de bespuiting 3 - 4 weke later toe. 'n Derde bespuiting mag onder omstandighede van hoë siektedruk benodig word ten einde die viagblaar te beskerm. Verseker dat die 3de bespuiting gedoen word met 'n swamdoder wat behoort aan 'n ander groep met 'n ander manier van werking.
<b>KOOL GEWASSE</b> (Brusselse Spruitjies, blomkool, broccoli en kopkool)  Swart blaarvlek ( <i>Alternaria</i> spp.), witroes ( <i>Albugo candida</i> ) asook onderdrukking (50-60 % beheer) van ringvlek ( <i>Mycosphaerella brassicicola</i> )	<b>GRONDTOEDIENING</b> 750 tot 1000 ml/ha in 300 - 500 ℓ water/ha. Vir die beheer van kool blaarvlek siektes mag die verneming met 'n goedgekeurde kleefmiddel/benatter die werking van <b>Nativo</b> bevorder.	Die 1ste bespuiting moet voor siekte ontwikkeling as 'n blaar bespuiting toegedien word (voorkomende beheer). Dien opvolg bespuitings toe met 21 dag intervalle. Die maksimum hoeveelheid bepuiting wat per gewas toegelaat word is 3 vir Brusselse spruitjies en kopkool en 2 vir broccoli en blomkool ( <b>verwys na die weerstandsbestuur klousule</b> ).



GEWAS / SIEKTE	TOEDIENINGSHOEVEELHEID	OPMERKINGS
<b>MIELIES:</b> Noordelike mielieblaarskroei ( <i>Setosphaeria turcica</i> ook bekend as <i>Exserchilum turcicum</i> of <i>Helminthosporium turcicum</i> )	<b>GROND- EN LUGTOEDIENING:</b> 1000 ml/ha	Dien die 1ste toediening toe wanneer die laaste oorhoofse bespuiting met 'n normale spuitbalk-toegeruste trekkerspuit gedoen kan word (normaalweg tussen 35 en 55 dae na ontkieming, afhange van die kultivar en klimaatsomgewing) maar nie later as wanneer 1 tot 2 letsels per plant sigbaar is op 50% van die plante nie. 'n 2e Bespuiting behoort 21-28 dae later onder die volgende toestande gedoen te word: <ul style="list-style-type: none"> <li>• Wanneer 'n vroeë infeksie voorgekom het (voor die 4 blaar stadium en normaalweg onder geen bewerkings-toestande) en die gewas nog nie die harde-deeg stadium bereik het nie.</li> <li>• Wanneer die toestande gunstig is vir die ontwikkeling van die siekte (koel, vogtige toestande).</li> <li>• Wanneer verspreiding van die siekte waargeneem word of wanneer aktief sporende letsels nog teenwoordig is.</li> </ul> <p>Hierdie bespuitings sal ook Bruinroes (Gewone mielieroës) en Grysblaarvlek beheer indien die toedienings ooreenstem met die kritiese tyd vir die beheer van hierdie siektes.</p>
Grysblaarvlek ( <i>Cercospora zeina</i> voorheen ook bekend in RSA as <i>Cercospora zeae-maydis</i> )	1000 ml/ha	Dien toe wanneer die eerste siekte-simptome waargeneem is op die basale 4-5 blare en voordat die infeksievlakke op die onderste blare 5% bereik en voordat letsels verskyn op die 3 blare direk onder die mieliekop (ongeveer 55-75 dae na plant). Volg op met 2de toediening 21-25 dae later. Derde toediening mag nodig wees afhange van die tyd wanneer die 1ste bespuiting plaasgevind het, die stadium van siekteontwikkeling in verhouding met die gewas groeistadium en die kultivar se siekte-vaatbaarheid asook die weerstoestande.  Hierdie bespuitings sal ook Noordelike mielieblaarskroei en Bruinroes (Gewone mielieroës) beheer indien die toedienings ooreenstem met die kritiese tyd vir die beheer van hierdie siektes.

# Swamdoder



GEWAS / SIEKTE	TOEDIENINGSHOEVEELHEID	OPMERKINGS
<b>MIELIES:</b> Bruinroes / Gewone mieleroes <i>(Puccinia sorghi)</i>	<b>GROND- EN LUGTOEDIENING:</b> 1000 ml/ha	Dien die 1ste bespuiting toe met die verskyning van die eerste simptome van Bruinroes maar nie later as blomstadium nie en herhaal 21-25 dae later. Verseker dat die bespuitings reeds plaasvind voor ernstige "Roesbandvorming" van die blaar plaasvind. Dit is 'n vereiste dat die toedienings sal plaasvind vóór die aanvang van pit-vulling. Indien die 1ste bespuiting plaasvind vóór die 8-blaarstadium van die gewas, mag 'n 3de bespuiting nodig wees.  Hierdie bespuitings sal ook Noordelike mielieblaarskroei en Grysblaarvlek beheer indien die toedienings ooreenstem met die kritiese tyd vir die beheer van hierdie siektes.
<b>NOTAS:</b> Die korrekte tyd van toediening is van kritiese belang ten einde hoë vlak van beheer te handhaaf. <ul style="list-style-type: none"> <li>• Grond (Trekker / Spuittoestelle) toediening: Toedieningsvolume van 300 - 500 ℓ per hektaar.</li> <li>• Rugsak met handspruitbalk: Toedieningsvolume van 50 ℓ per hektaar.</li> <li>• Lugtoediening: Toedieningsvolume van 30 - 40 ℓ per hektaar.</li> </ul>		
<b>SOJABONE</b> Roes ( <i>Phakopsora pachyrhizi</i> )	<b>GRONDTOEDIENING:</b> 500 ml/ha toegedien in 300 - 500 ℓ water/ha.  <b>LUGTOEDIENING:</b> 500 ml/ha toegedien in 30 - 40 ℓ water/ha.	Dien toe sodra die eerste simptome verskyn en herhaal bespuiting 14-21 dae later. Wanneer weerstoestande bevorderlik is vir ontwikkeling van die siekte (temperatuur van 15-28°C en hoë vogtigheid) spuit teen korter interval. Indien die siekte gedurende blom of vroeë peulvuur voorkom sal meer as een bespuiting per seisoen nodig wees. Indien die siekte laat in die groeiseisoen voorkom sal een bespuiting voldoende wees. Verseker deeglike bedekking van die hele plant.
<b>WORTELS</b> Blaarskroei ( <i>Alternaria dauci</i> ) en Poeragtige skimmel ( <i>Erysiphe heraclei</i> )	<b>GRONDTOEDIENING:</b> 750 ml/ha in 300 - 500 ℓ water/ha.	Die 1ste bespuiting moet voor siekte ontwikkeling as 'n blaar bespuiting toegedien word (voorkomende beheer). Dien 'n reeks van maksimum 3 bespuitings toe in 'n voorkomende spuitprogram met 21 dae intervalle.

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# Fungicide



## WARNINGS:

<b>BARLEY:</b>	<b>DO NOT HARVEST OR GRAZE WITHIN 77 DAYS OF LAST APPLICATION.</b>
<b>BRASSICA VEGETABLES:</b> (Brussels sprouts, cabbage, broccoli and cauliflower)	<b>ALLOW 21 DAYS BETWEEN LAST APPLICATION AND HARVEST.</b>
<b>BULB VEGETABLES:</b> (Garlic, leeks & onions)	<b>ALLOW 21 DAYS BETWEEN LAST APPLICATION AND HARVEST.</b>
<b>CARROTS:</b>	<b>ALLOW 21 DAYS BETWEEN LAST APPLICATION AND HARVEST.</b>
<b>MAIZE:</b>	<b>DO NOT HARVEST MAIZE WITHIN 42 DAYS OF LAST APPLICATION AND DO NOT GRAZE OR USE PLANTS AS FODDER FROM TREATED MAIZE FIELDS WITHIN 60 DAYS OF LAST APPLICATION.</b>
<b>POTATOES:</b>	<b>ALLOW 14 DAYS BETWEEN LAST APPLICATION AND HARVEST.</b>
<b>SOY BEANS:</b>	<b>ALLOW 32 DAYS BETWEEN LAST APPLICATION AND HARVEST.</b>

**NOTE:** The recommended withholding period between the last application and harvest meets local residue requirements but may not meet export requirements. If the crop to be treated is intended for the export market, consult the relevant exporting organisation regarding MRL requirements and withholding periods. When this product is used according to the label recommendations set herein, the local MRL will not be exceeded. Bayer (Pty) Ltd can however not be held liable for export crops exceeding the import tolerances of other countries.

- Suspected of damaging the unborn child.
- Very toxic to aquatic life with long lasting effects.
- Store in original tightly closed containers in a dry, cool and well ventilated area. Storage temperatures: above -5°C to 30°C.
- Keep away from food, drinks and animal feedstuffs.
- Keep out of reach of children, uninformed persons and animals.
- **RE-ENTRY:** Do not enter treated area until spray deposit has dried unless wearing protective clothing.
- Aerial Application: Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate adjacent areas or crops.

**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 PATHOGEN 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 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 protective gloves/ protective clothing/ eye protection/ face protection.
- Wash hands and entire body with soap and water after use.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke while mixing or applying the product and wash hands and face before doing so.
- Avoid drift of spray onto other crops, grazing, rivers, dams, boreholes and areas not under treatment.
- Clean applicator after use and dispose of wash water where it will not contaminate crops, grazing, rivers, dams and boreholes.

- Prevent contamination of food, feed, drinking water and eating utensils.
- Rinse empty container three times with a volume water equal to at least one tenth of that of the container and add the rinsings to the contents of the spray tank before disposing of the container in the prescribed manner.
- Destroy empty container by perforation and flattening and never use for any other purpose.

## RESISTANCE MANAGEMENT:

**Nativo** is a group **Code 3** (DMI / SBI / Triazole) and group **Code 11** (QoI) (Strobilurin) fungicide. Any fungus population may contain individuals naturally resistant to **Nativo** and other group **Code 3** and group **Code 11** fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **Nativo** or any other group **Code 3** and group **Code 11** fungicides. In order to maintain the efficacy of **Nativo** it is necessary to prevent the development of resistance of the diseases against fungicides of the triazole and strobilurin groups.

To delay fungicide resistance:

### Barley

- Always apply QoI fungicides in mixtures with non-cross resistant fungicides.
- Apply a maximum of two QoI fungicides per season.
- Do not reduce the dose rate below what is recommended on the label.
- Avoid exclusive repeated use of fungicides from the same fungicide Group Code.
- For tank mixing or alternation with other suitable products refer to the applicable individual product labels.
- Integrate other control methods (chemical, cultural, biological) into disease control programs.
- Do not use other strobilurin fungicides (QoI) or related fungicides in the same programme with **Nativo**.

### Brassica vegetables, Bulb vegetables and Carrots

- **Nativo** contains trifloxystrobin, a member of the QoI cross-resistance group. Use **Nativo** as part of an Integrated Crop Management (ICM) strategy incorporating other methods of control, including where appropriate other fungicides with a different mode of action.
- Do not spray more than 3 applications to Brussels sprouts, cabbage, carrots or leeks and more than 2 applications to broccoli or cauliflower. Also in accordance with FRAC guidelines for pre-mix QoI fungicides, the number of applications of QoI containing products should not be more than 50% of the spray programme.

### Maize

- Do not reduce the dose rate below what is recommended on the label.
- Avoid exclusive repeated use of fungicides from the same fungicide Group Code.
- For tank mixing or alternation with other suitable products refer to the applicable individual product labels.
- Integrate other control methods (chemical, cultural, biological) into disease control programs.
- Do not use other strobilurin fungicides (QoI) or related fungicides in the same programme with **Nativo**.

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## Potatoes

- The application of QoI containing mixtures should not exceed 50% of the total number of sprays including that for early and late blight control.
- Do not use more than 3 consecutive QoI sprays.
- Do not use other strobilurin fungicides (QoI) or related fungicides in the same programme with **Nativo**.

## Soy beans

- Apply QoI fungicides according to manufacturer's recommendations for the target disease (or complex) at the specific crop growth stage indicated. Effective disease management is a critical parameter in delaying the build-up of resistant pathogen populations.
- Use QoIs preventatively or as early as possible in the disease cycle.
- Use QoIs preferably in mixtures (co-formulations or tank mixes) with fungicides from a different cross-resistance group.

For the latest crop guidelines refer to the **FRAC Website** ([www.frac.info/frac/index.htm](http://www.frac.info/frac/index.htm)) OR contact the registration holder.

## AERIAL APPLICATION:

### Barley, Maize, Potatoes and Soy beans:

- Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate adjacent areas or water. Please refer to the SANS Code of Practice for the aerial application of agricultural chemicals.
- Aerial application of **Nativo** 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 - 40 ℓ per hectare is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
- **Droplet coverage:** 25 to 35 droplets per cm<sup>2</sup> must be recovered at the target area.
- **Droplet size:** A droplet spectrum with a VMD of 280 to 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 to 4 metres above the target. Do not spray when aircraft dives, is in a climb 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 to 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:
  - reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
  - damage to other sensitive crops and / or non-target are as 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.

## USE RESTRICTIONS:

- Apply according to good agricultural practices and anti-resistant management programmes.
- No cross-resistance exists between the strobilurines and other chemical classes e.g. the De-methylation inhibitors, anilinepyrimidines and phenylpyrroles.

**DIRECTIONS FOR USE:** USE ONLY AS DIRECTED.

## COMPATIBILITY:

The compatibility of **Nativo** with other products may be influenced by the formulation of the other products involved as well as the quality of the water. Since the formulation of other products may change without the knowledge of Bayer (Pty) Ltd and the quality of water may vary from farm to farm, a physical compatibility test should always be carried out prior to application.

## Potatoes

**Nativo** is compatible with the following fungicides and insecticides:

**Belt** (Reg. No. L8860), **Bulldock Beta 125 SC** (Reg. No. L7612), **Decis Forte** (Reg. No. L6563), **Infinito 687.5 SC** (Reg. No. L8470), **Melody Duo 69 WP** (Reg. No. L8829), **Melody Duo 69 WG** (Reg. No. L6714) and **Movento** (Reg. No. L8559).

## Soy beans

**Nativo** is compatible with the following insecticides:

**Bulldock Beta 125 SC** (Reg. No. L7612) and **Decis Forte** (Reg. No. L6563).

Refer to the respective product labels for directions of use.

## MIXING INSTRUCTIONS:

- Half fill the spray tank with clean water.
- Remove the filter on the top of the tank.
- Add the required amount of **Nativo** to the spray tank and top up with water to the required volume while agitating continuously.
- DO NOT prepare **Nativo** as a pre-mix before adding it into the tank.
- If **Nativo** needs to be used in tank mix combinations, full cognisance must be taken of all warnings, precautions and directions for use on that label. First mix small quantities of the chemicals separately with water. It is recommended to add these mixtures together while agitating and check for any signs of incompatibility e.g. flocculation etc.
- Continue agitation throughout application and do not allow the tank mixture to stand still for any period of time.
- Ensure thorough agitation of the mixture in the tank during mixing and spraying.

## Application:

Ensure that the application equipment to be used is in a good working condition, correctly calibrated and not contaminated with other chemicals. Use the spray volumes as indicated in the relevant tables to ensure good coverage. Ensure thorough agitation of the mixture in the tank during mixing and spraying and do not allow the tank mixture to stand still for any period of time.

## Influence of rain on application:

Should it rain within two hours after application, the application must be repeated.

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## APPLICATION TECHNIQUES:

### AERIAL APPLICATION:

Refer to aerial application above.

### GROUND APPLICATION:

Nativo may be applied with conventional high volume spray equipment. Calibrate the apparatus before application to ensure that the correct dosage is applied. The distribution of the spray volume must be uniform throughout the target area. Ensure good coverage of the whole plant by using enough water and suitable spraying equipment.

## APPLICATION TABLE:

CROP / DISEASE	DOSAGE	REMARKS
<b>BARLEY</b> Leaf spot ( <i>Rhynchosporium secalis</i> )	<b>GROUND APPLICATION:</b> 500 m <sup>3</sup> /ha applied in 250 - 300 ℓ water/ha.  <b>AERIAL APPLICATION:</b> 500 m <sup>3</sup> /ha applied in 30 - 40 ℓ water/ha.	Commence spraying at the very first signs of the disease / infection. Apply the 2nd application 3 – 4 weeks later.
Net blotch ( <i>Pyrenophora teres</i> )	<b>GROUND APPLICATION:</b> 500 m <sup>3</sup> /ha applied in 250 - 300 ℓ water/ha.  <b>AERIAL APPLICATION:</b> 500 m <sup>3</sup> /ha applied in 30 - 40 ℓ water/ha.	Apply at the very first signs of the disease / infection <b>or</b> at the First Node stage (BBCH 31). Apply the 2nd application 3 - 4 weeks later. Under high disease pressure, a third application 3 - 4 weeks later may be necessary in order to protect the flag leaf. Ensure that the 3rd application is done with a product which belongs to a <b>different mode of action</b> .
<b>BRASSICA VEGETABLES</b> (Brussels sprouts, cabbage, broccoli and cauliflower)  Black leaf spot ( <i>Alternaria</i> spp.), White blister ( <i>Albugo candida</i> ) as well as suppression (50-60 % control) of Ring spot ( <i>Mycosphaeriella brassicicola</i> )	<b>GROUND APPLICATION:</b> 750 to 1000 m <sup>3</sup> /ha in 300 - 500 ℓ water/ha.  For the control of brassica leaf spot diseases mixing with an approved sticker/wetter adjuvant may enhance the activity of <b>Nativo</b> .	The 1st application must be applied as a foliar spray before disease establishment (preventative control). Apply follow-up sprays with 21 day intervals. The maximum number of sprays allowed per crop is 3 for Brussels sprouts and cabbage and 2 for broccoli and cauliflower ( <b>refer resistant management clause</b> ).
<b>BULB VEGETABLES</b> (Garlic, Leeks & Onions) Purple Blotch ( <i>Alternaria porri</i> ) and Rust ( <i>Puccinia allii</i> )	<b>GROUND APPLICATION:</b> 1000 m <sup>3</sup> /ha in 300 - 500 ℓ water/ha.	The 1st application must be applied as a foliar spray before disease establishment (preventative control). Apply a series of a maximum 3 sprays in a preventative programme with 21 day intervals.
<b>CARROTS</b> Leaf Blight ( <i>Alternaria dauci</i> ) and Powdery Mildew ( <i>Erysiphe heraclei</i> )	<b>GROUND APPLICATION:</b> 750 m <sup>3</sup> /ha in 300 - 500 ℓ water/ha.	The 1st application must be applied as a foliar spray before disease establishment (preventative control). Apply a series of a maximum 3 sprays in a preventative programme with 21 day intervals.

CROP / DISEASE	DOSAGE	REMARKS
<b>MAIZE:</b> Northern corn leaf blight ( <i>Setosphaeria turcica</i> <b>also known as Exserohilum turcicum</b> or <i>Helminthosporium turcicum</i> )	<b>GROUND AND AERIAL APPLICATION:</b> 1000 m <sup>3</sup> /ha	Apply the 1st application at the last time an overhead spray can be made with a normal tractor fitted boom (normally between 35 and 55 days after emergence, depending on the variety and climatic region) but not later than when 1 to 2 lesions are visible on 50% of the plants. A second spray should be applied 21-28 days later under the following conditions: <ul style="list-style-type: none"> <li>When an early infection has taken place (before the 4 leaf stage and normally under no-till conditions) and the crop has not yet reached the hard dough stage.</li> <li>When conditions are conducive to the development of the disease (cool moist conditions).</li> <li>When spreading of the disease is noticed or when active sporulating lesions are still present.</li> </ul> <p>These applications will also control Brown rust (Common corn rust) and Grey leaf spot if the applications coincide with the critical application time for these diseases.</p>
Grey leaf spot ( <i>Cercospora zeina</i> <b>previously known in RSA as</b> <i>Cercospora zeae-maydis</i> )	1000 m <sup>3</sup> /ha	Apply when disease symptoms are first observed on the basal 4-5 leaves and before the infection level on the lowest leaves reaches 5 % and before lesions appear on the 3 leaves below the cob (approximately 55-75 days after planting). Follow-up with a second application 21-25 days later. A third application may be necessary depending on the time of the first application, the disease development in relation to the crop stage, the susceptibility of the hybrid to the disease and the weather conditions. <p>These applications will also control Northern corn leaf blight and Brown rust (Common corn rust) if the applications coincide with the critical application time for these diseases.</p>



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CROP / DISEASE	DOSAGE	REMARKS
<b>MAIZE:</b> Brown Rust / Common corn rust ( <i>Puccinia sorghi</i> )	<b>GROUND AND AERIAL APPLICATION:</b> 1000 m/ha	Apply the first spray at the first signs of Brown (Common) Rust symptoms but not later than flowering and repeat 21-25 days later. Ensure that applications take place before severe rust banding on the leaf occurs. It is essential that the applications take place before kernel fill. Should the first application take place before the 8-leaf stage of the crop, a third application may be required.  These applications will also control Northern corn leaf blight and Grey leaf spot if the applications coincide with the critical application time for these diseases.
<b>NOTES:</b> The correct timing of application is of critical importance to maintain a high level of control. <ul style="list-style-type: none"> <li>• Ground (Tractor / Spray rigs) application: Application volume of 300 - 500 ℓ per hectare.</li> <li>• Knapsack with handheld boom: Application volume of 50 ℓ per hectare.</li> <li>• Aerial application: Application volume of 30 - 40 ℓ per hectare.</li> </ul>		
<b>POTATOES</b> Early blight ( <i>Alternaria solani</i> )	<b>GROUND APPLICATION:</b> 800 m/ha in 500 ℓ water/ha.  <b>AERIAL APPLICATION:</b> 1000 m/ha applied in 30 - 40 ℓ water/ha.	Apply a series of maximum 3 sprays in a preventive programme at 7 day intervals starting about 4 weeks after full emergence (tuber initiation/flowering). <b>Nativo</b> should be applied in a tank mixture with a registered late blight fungicide when conditions are favourable for the development of late blight. <b>Nativo</b> should NOT be applied more than 3 times per season AND it should NOT be applied as the last application of the season.  Where Early blight is a problem earlier or later in the growing season a suitable fungicide from a different chemical group should be used.
<b>SOY BEANS</b> Rust ( <i>Phakopsora pachyrhiz</i> )	<b>GROUND APPLICATION:</b> 500 m/ha in 300-500 ℓ water/ha.  <b>AERIAL APPLICATION:</b> 500 m/ha in 30 - 40 ℓ water/ha.	Apply at first signs of disease and repeat 14-21 days later. When weather conditions are conducive to disease development (temperatures of 15-28°C and high humidity) use shorter interval. If the disease appears during flowering or early pod-fill more than one spray may be necessary. Should disease appear late in the growing season, a single application will be sufficient. Ensure thorough coverage of the whole plant.

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