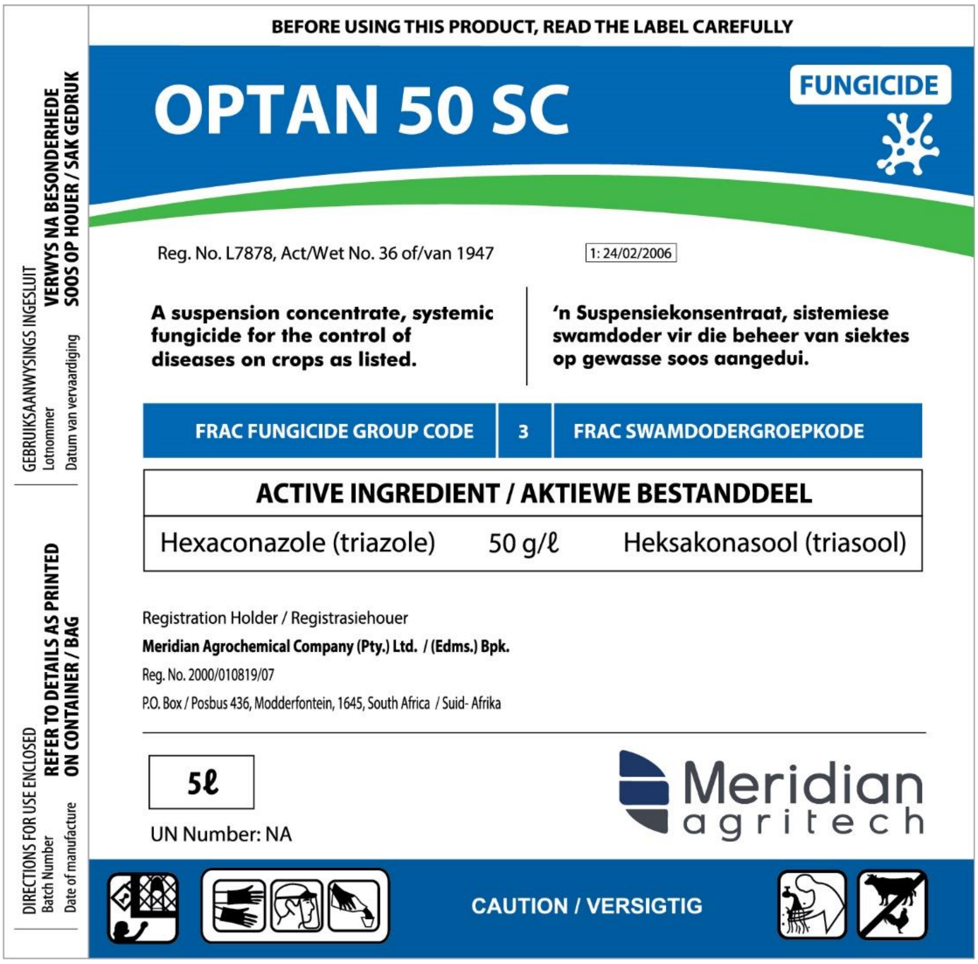
OPTAN 50 SC



BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY
OPTAN 50 SC
FUNGICIDE
Reg. No. L7878, Act/Wet No. 36 of/van 1947
1: 24/02/2006
A suspension concentrate, systemic fungicide for the control of diseases on crops as listed.
'n Suspensiekonsentraat, sistemiese swamdoder vir die beheer van siektes op gewasse soos aangedui.
FRAC FUNGICIDE GROUP CODE
3
FRAC SWAMDODERGROEPKODE
ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL
Hexaconazole (triazole)
50 g/ℓ
Heksakonasool (triasool)
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
5ℓ
UN Number: NA
Meridian agritech
CAUTION / VERSIGTIG
DIRECTIONS FOR USE ENCLOSED
Batch Number
Date of manufacture
REFER TO DETAILS AS PRINTED ON CONTAINER / BAG
GEBRUIKSAANWYSINGS INGESLUIT
Lotnommer
Datum van vervaardiging
VERWYS NA BESONDERHEDE SOOS OP HOUER / SAK GEDRUK

WARNINGS

Allow the following number of days between last treatment and harvest or use as food or feed:

Green beans..……………………………………………………………………………………………...3 days
Grapes.………………………………………………………………………………………………….7 days
Dry beans……………………………………………………………………………………………...14 days

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

- May cause eye irritation.
- Toxic to animals and birds.
- Store under lock and key in a cool place.
- Store away from food, feed, fertilizer and other agricultural products.
- 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.
- **Optan 50 SC** has been tested on the most important commercial cultivars without any phyto toxic effects. More susceptible cultivars may be released in future which need to be tested; for this apply **Optan 50 SC** to a limited test area before commercial applications are made.
- **Aerial application:** Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not apply over water bodies and ensure that spray drift will not contaminate areas not under treatment.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be effective under all conditions. The activity 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, 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 by 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.
- Avoid skin and eye contact by wearing protective clothing when mixing the product. Should eye contact occur, flush with plenty of water and get medical attention if necessary.
- Wash with soap and water after use and accidental skin contact as well as contaminated clothing.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke while mixing or applying the product or before washing hands and face.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean applicator after use. Dispose of rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Rinse empty container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsings to the contents of the spray tank before destroying the empty container by perforation and flattening.
- Do not use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

RESISTANCE WARNING

For resistance management, **Optan 50 SC** is a group code 3 fungicide. Any fungus population may contain individuals naturally resistant to **Optan 50 SC** and other group code 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 **Optan 50 SC** or any other group code 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.
- A spray programme of mixtures or alternations with remedies with a different mode of action may delay resistant strain build-up.
- Integrate other control methods (chemical, cultural, biological) into disease control programmes.

For specific information on resistance management, contact the registration holder of this product. 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 **Optan 50 SC** 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.

USE RESTRICTIONS

- The uptake and activity of systemic compounds can be reduced when crops are under severe drought and/or nutrient stress conditions. Therefore do not apply **Optan 50 SC** under such conditions.
- Spray programmes with **Optan 50 SC** should commence before disease/s become established.
- Do not apply **Optan 50 SC** to any crop or situation not mentioned in this instruction leaflet.
- Only apply **Optan 50 SC** using an accurate and safe application technique.
- If **Optan 50 SC** 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 suitable water, then add the required amount of **Optan 50 SC** to the water in the tank while agitating. Fill the spray tank to the desired volume. Do not use brackish water. Should tank mixtures with other products be made, follow the respective manufacturers' label recommendations. **Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank**. Spraying equipment must be thoroughly flushed out at the end of the spraying operation.

COMPATIBILITY

The compatibility of **Optan 50 SC** 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. **Optan 50 SC** is compatible with most agricultural remedies normally used in vines and is compatible with chlorothalonil 720 SC for use in green and dry beans.

APPLICATION METHODS

Ensure that the equipment is correctly calibrated and is checked regularly during application to ensure even and accurate application. **Optan 50 SC** can be applied with conventional tractor boom sprayers in 300 – 500 ℓ water/ha as well as high volume mist blowers. **Constant agitation throughout the spray operation is essential**. 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 0118 (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 (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and 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 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 50 – 70 droplets per sq cm must be recovered at the target.
- A droplet spectrum with a VMD of 250 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 or during a dive or when banking. Apply before the crop growth becomes too dense, which will interfere with overall plant coverage.

Meteorological Conditions

- The difference between the wet and dry bulb readings as determined by a whirling hygrometer, must not exceed 8 ºC.
- Do not spray under turbulent, unstable conditions nor 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).
- 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.
- Obtain an assurance from the aerial spray operator that the above requirements will be met.

RECOMMENDATIONS

CROP/DISEASE	APPLICATION RATE/ha or as indicated	REMARKS
Wine and Table grapes Powdery mildew (*Oidium tuckerii*)	30 mℓ/100 ℓ water every 10 – 14 days OR 40 mℓ/100 ℓ water every 18 – 21 days	Apply as part of a spray programme in sufficient spray volume to ensure thorough coverage at all times (to point of run-off). Commence spraying when shoots are 100 – 250 mm long and repeat every 14 days. Apply no more than 4 sprays per season with the last application at the start of bunch closure. WINE GRAPES: Start spray programme at 250 ℓ/ha spray volume and use not less than 1 000 ℓ/ha from peaberry stage onwards. TABLE GRAPES: Start spray programme at 500 ℓ/ha spray volume and increase this to not less than 1 200 ℓ/ha.

- It is recommended to include contact fungicides such as sulphur containing formulations for the control of powdery mildew in grapes.
- Do not exceed the recommended spray interval and include remedies in the total spray programme which will effectively control downy mildew.
- Always spray every row from both sides.
- Summer pruning is recommended to improve spray penetration and coverage.

Green and dry beans Rust (*Uromyces appendiculatus*)	**Ground application:** 480 mℓ/ha OR 360 mℓ/ha PLUS 350 mℓ/ha chlorothalonil 720 SC **Late ground application:** 480 mℓ/ha PLUS 1,4 ℓ/ha chlorothalonil 720 SC **Aerial application:** 480 mℓ/ha OR 432 mℓ/ha PLUS 420 mℓ/ha chlorothalonil 720 SC **Late aerial application:** 480 mℓ/ha PLUS 1,4 ℓ/ha chlorothalonil 720 SC	Apply **Optan 50 SC** or the **Optan 50 SC/Chlorothalonil 720 SC** spray mixture as a preventive spray programme of at least 2 applications at 10 - 14 day intervals. Start application at the first signs of brown rust or when weather conditions are favourable for the development of the disease. Apply only once if adverse climatic conditions prevail late in the growing season.

WAARSKUWINGS

Laat die volgende aantal dae toe tussen laaste toediening en oes, of vir gebruik as voedsel of voer:

Groenbone…………………………………………………………………………………...……………..… 3 dae
Wyn- en Tafeldruiwe……………………………………………………………………………….…….. 7 dae
Droëbone………………………………………………………………………………………………..…14 dae

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

- Mag oogirritasie veroorsaak.
- Giftig vir diere en voëls.
- Berg agter slot-en-grendel in ‘n koel plek.
- Berg weg van voedsel, voer, kunsmis en ander landbouprodukte.
- Hou buite bereik van kinders, oningeligte persone en diere.
- Wanneer tenkmengsels met selektiewe grasdoders gemaak word, mag ‘n effense vergeling of blaarskroei op bespuite blare voorkom. Nuwe blaarontwikkeling sal egter nie geaffekteer word nie.
- **Herbetreding** – Moet nie behandelde gebiede betree alvorens die spuitneerslag droog is nie, tensy beskermende oorklere gedra word.
- **Optan 50 SC** is sonder enige fitotoksisiteitskade op die mees belangrikste kommersiële kultivars getoets. Meer vatbare kultivars mag in die toekoms vrygestel word wat eers getoets moet word; hiervoor moet **Optan 50 SC** eers op ‘n klein toetsoppervlakte aangewend word, alvorens groot kommersiële bespuitings gemaak word.
- **Lugtoediening:** Stel al die inwoners in die onmiddellike omgewing van die gebied wat gespuit gaan word in kennis en reik die nodige waarskuwings uit. Moenie oor water toedien of toelaat dat die spuitnewel wegdryf en gebiede besmet wat nie behandel word 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 die 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

- Moet nie damp of spuitnewel inasem nie.
- Vermy kontak met die vel en oë deur beskermende oorklere te dra wanneer die produk gemeng word en gedurende toediening.
- Was met seep en koue water onmiddelik na gebruik en toevallige velkontak sowel as besoedelde klere.
- Was besoedelde klere onmiddellik na gebruik.
- Moet nie eet, drink of rook tydens vermenging of toediening van die produk of voordat hande en gesig gewas is nie.
- Vermy wegdrywing van spuitnewel na ander gewasse, weiding, riviere, damme en plekke wat nie behandel moet word nie.
- Maak toedieningsapparaat skoon na gebruik. Uitspoelwater moet nie gewasse, weiding, riviere, damme en boorgate besoedel nie.
- Voorkom die besoedeling van voedsel, voer, drinkwater en eetgerei.
- Spoel leë houer **drie keer** uit met ‘n volume water gelykstaande aan ‘n minimum van 10% van die houer. Gooi die spoelwater by die inhoud van die spuittenk voordat die houer vernietig word deur gate in te maak en plat te slaan.
- Vernietig die leë houer, moet dit vir geen ander doel gebruik nie.

WEERSTANDSWAARSKUWING

Vir weerstandsbestuur is **Optan 50 SC** ‘n groepkode 3 swamdoder. Enige swampopulasie mag individue insluit wat ‘n natuurlike weerstand teen **Optan 50 SC**, of enige ander groepkode 3 swamdoders het. Indien hierdie swamdoders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die siekte-populasie oorheers. Hierdie weerstandbiedende swamme sal waarskynlik nie deur **Optan 50 SC** of enige ander groepkode 3 swamdoders beheer word nie.

Om weerstand teen swamdoders te vertraag:

- Vermy die eksklusiewe herhaaldelike gebruik van swamdoders met dieselfde groepkode. Wissel af met, of gebruik tenkmengsels van, produkte in verskillende swamdodergroepkodes.
- ‘n Spuitprogram of tenkmengsels met middels met ‘n ander metode van werking kan die opbou van weerstandbiedendheid vertraag.
- Integreer ander beheermaatreels (chemies, verbouing, biologies) in siektebeheerprogramme.

Aangesien die voorkoms van weerstand nie voorspel kan word nie, word gebruikers derhalwe gemaan om behandelde gewasse noukeurig dop te hou. Indien die behandeling nie doeltreffend is nie na bespuiting met **Optan 50 SC** soos aanbeveel, mag ‘n weerstandbiedende ras teenwoordig wees. Indien ‘n weerstandbiedende ras positief geïdentifiseer word, skakel dadelik oor na ander geskikte swamdoders met ‘n ander werking waar geen weerstand opgemerk is nie. Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk.

GEBRUIKSBEPERKINGS

- Die opname en werking van sistemiese swamdoders kan verlaag word wanneer gewasse onder ernstige droogte- en/of voedingsgebrektoestande verkeer. Wanneer die gewas dus onder hierdie stremmingstoestande verkeer, word ‘n toediening van **Optan 50 SC** nie aanbeveel nie.
- Begin spuitprogramme met **Optan 50 SC** voordat die siekte(s) posvat.
- Moet nie **Optan 50 SC** toedien op enige gewas of situasie wat nie op hierdie etiket verskyn nie.
- Dien **Optan 50 SC** slegs met akkurate en veilige toedieningsmetodes toe.
- As **Optan 50 SC** met ander middels in tenkmengsels gebruik word, moet die gebruiksaanwysings van daardie betrokke produkte gevolg word.

GEBRUIKSAANWYSINGS
Gebruik slegs soos aangedui.

MENGINSTRUKSIES

Maak die spuittenk halfvol met geskikte water en voeg die benodigde hoeveelheid **Optan 50 SC** by terwyl water aanhoudend geroer word. Maak die spuittenk tot die finale volume vol. Moet nie brakwater gebruik nie. As tenkmengsels gemaak word met ander middels, moet die spesifieke vervaardiger se etiket gevolg word. **Die tenkmengsel moet onmiddellik uitgespuit word en nie toegelaat word om in die spuittenk te staan nie.** Die spuittoerusting moet aan die einde van toediening deeglik uitgewas word.

VERENIGBAARHEID

Die verenigbaarheid van **Optan 50 SC** met ander produkte hang van die formulering van die betrokke produkte af, asook van die kwaliteit van die spuitwater. Deurdat formulerings van tyd tot tyd kan verander, word dit aanbeveel om ‘n fisiese verenigbaarheidstoets te doen alvorens ‘n tenkmengsel gemaak word. **Optan 50 SC** is verenigbaar met die meeste landboumiddels wat normaalweg op wingerde gebruik word en is verenigbaar met chlorotalonil 720 SC vir gebruik in groen- en droëbone.

TOEDIENINGSMETODES

Maak seker dat die spuittoerusting reg gekalibreer is en gereeld tydens toediening nagegaan word om egalige en akkurate toediening te verseker. **Optan 50 SC** kan toegedien word met ‘n gewone trekkerbalkspuit in 300 – 500 ℓ water/ha, asook met hoë-volume newelblasers. **Die mengsel moet aanhoudend en deeglik geroer word tydens toediening.** Slegs skoon water moet gebruik word.

LUGTOEDIENING
Lugtoediening mag slegs deur ‘n geregistreerde lugbespuitingsoperateur met ‘n geregistreerde en korrek gekalibreerde vliegtuig volgens die instruksies van SANS 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 van spuitmengsel tydens toediening tot ‘n minimum beperk word. Die volgende kriteria moet nagekom word;

Toerusting

- Gebruik geskikte atomiseringsapparaat (hidroliese of roterende spuitkoppe) wat die vereiste druppelgrootte en bedekking van die teiken sal produseer, maar wat die minste verlies van produk deur wegdrywing sal verseker.

- Die operateur moet 'n spuitstelsel gebruik wat 'n druppelspektrum met die kleinste moontlike relatiewe span sal produseer.
- Al die spuitkoppe en atomiseerders moet in die binneste 75% van die vlerkspan geplaas word om die beweging van druppels binne-in die vlerkpuntvorteks te beperk

Toedieningsvereistes
- 'n Minimum volume van 30 – 40 ℓ spuitmengsel per ha word aanbeveel. Aangesien hierdie produk nie teen 'n verlaagde spuitvolume 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 50 – 70 druppels per vk cm moet op die teikenarea herwin word.
- 'n Druppelspektrum met 'n VMD van 250 mikron word aanbeveel. Verseker dat die produksie van fyn druppels, met 'n VMD wat kleiner as 150 mikron is, tot 'n minimum beperk word.
- Die hoogte van die spuitbalk moet tussen 3 en 4m bo die teiken gehandhaaf word.
- Moet nie spuit wanneer die vliegtuig aan die bopunt van 'n draai is of tydens 'n duik of terwyl dit uitklim of draai nie.
- Dien toe voordat die gewas te ruig word aangesien dit die druppelbedekking op die plante sal verminder.

Meteorologiese Toestande
- Die verskil tussen die nat- en droëbollesing, soos met 'n swaaihigrometer bepaal, moet nie 8 ºC oorskry nie.
- Moenie toedien tydens turbulente en onstabiele weerstoestande of gedurende die hitte van die dag wanneer stygende en dalende konveksie-windbeweging plaasvind nie.
- Moenie toedien onder temperatuurinversie-toestande (deur bokant of binne-in die inversielaag te spuit) nie.
- Moenie spuit indien die windspoed 15 km per uur oorskry nie.

Algemeen
- Sorg dat die lande akkuraat gemerk is en die spuitoperateur presies weet watter lande gespuit moet word.
- Verkry 'n versekering van die spuitoperateur dat aan die bogenoemde vereistes voldoen sal word.

AANBEVELINGS

GEWAS/SIEKTE	DOSIS/ha of soos aangedui	OPMERKINGS
Wyn- en Tafeldruiwe Poeieragtige skimmel (*Oidium tuckerri*)	30 mℓ/100 ℓ water elke 10 – 14 dae OF 40 mℓ/100 ℓ water elke 18 – 21 dae	Dien toe as deel van 'n spuitprogram in voldoende hoeveelhede water om deeglike bedekking te verseker (tot by die punt van afloop). Begin die bespuitings wanneer die eerste lote 100 – 250 mm lank is en herhaal elke 14 dae. Moet nie meer as 4 bespuitings per seisoen toedien nie; met die laaste bespuiting by die begin van trostoemaak. WYNDRUIWE: Begin die spuitprogram teen 'n spuitvolume van 250 ℓ/ha en gebruik nie minder 1 000 ℓ/ha vanaf die ertjiekorrelstadium nie. TAFELDRUIWE: Begin die spuitprogram teen 'n spuitvolume van 500 ℓ/ha en verhoog tot nie minder as 1 200 ℓ/ha.

- Dit word aanbeveel dat kontakswamdoders soos swaelbevattende-formulerings ingesluit word vir die beheer van poeieragtige skimmel in druiwe.
- Die aanbevole spuitintervalle moet nie oorskry word nie en sluit ander middels in wat donsige skimmel doeltreffend sal beheer.
- Spuit beide kante van elke ry.
- Somerloofbeheer word aanbeveel om penetrasie van spuitstowwe te vergemaklik en bedekking te verbeter.

Groen en droë bone Roes (*Uromyces appendiculatus*)	**Grondtoediening:** 480 mℓ/ha OF 360 mℓ/ha PLUS 350 mℓ/ha chlorotalonil 720 SC **Laat grondtoediening:** 480 mℓ/ha PLUS 1,4 ℓ/ha chlorotalonil 720 SC **Lugtoediening:** 480 mℓ/ha OF 432 mℓ/ha PLUS 420 mℓ/ha chlorotalonil 720 SC **Laat lugtoediening:** 480 mℓ/ha PLUS 1,4 ℓ/ha chlorotalonil 720 SC	Dien toe in 250 - 300 ℓ water / ha. Dien **Optan 50 SC** of die **Optan 50 SC/**chlorotalonil 720 SC spuitmengsel toe as 'n voorkomende spuitprogram van ten minste twee toedienings met 'n tussenpose van 10 - 14 dae. Begin toediening met die eerste tekens van bruinroes of wanneer weerstoestande gunstig is vir die ontwikkeling van die siekte. Dien slegs een bespuiting toe wanneer ongunstige weerstoestande heers laat in die groeiseisoen.