Main Panel
For further information see attached pamphlet
Vir verdere inligting sien aangehegte pamflet

Read the label carefully before opening

PHOSGUARD 400 SL

Reg. No./Nr L6477, Act No./Wet Nr. 36 of / van 1947
Botswana Reg. No. W130157, Act No. 18 of 1999
Namibian Reg. No. / Namibiese Reg. Nr. N-AR 1666
Malawi Reg. No. / Malawiese Reg. Nr. MW/PCB/2021/R/0756

A systemic water soluble liquid fungicide for the control of diseases caused by Oomycetes on various crops as listed in the label.

‘n Sistemiese wateroplosbare vloeistof swamdoder vir die beheer van siektes wat veroorsaak word deur Oömycetes op verskeie gewasse soos aangedui op die etiket.

FUNGICIDE GROUP CODE 33 SWAMDODERGROEPKODE

ACTIVE INGREDIENT : **AKTIEWE BESTANDDEEL:**

Phosphorous acid equivalent ....400 g/ℓ...Fosforigsuur ekwivalent
Potassium phosphite ....560 g/ℓ.. Kaliumfosfiet

NET VOLUME ℓ NETTO VOLUME

NULANDIS®

<u>REGISTRATION HOLDER / REGISTRASIEHOUER</u>:

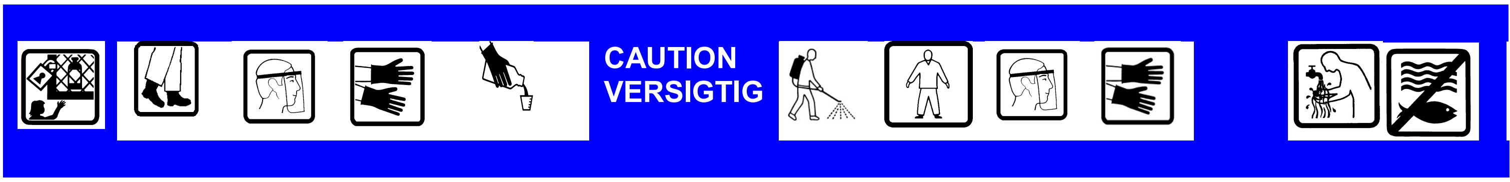
Nulandis® (A division of AECI Limited / Nulandis® (‘n Afdeling van AECI Beperk)
Reg. No. / Nr. 1924/002590/06
P.O. Box / Posbus 14418

Witfield, 1467
Tel : (011) 823 8000

IN CASE OF POISONING PLEASE PHONE / IN GEVAL VAN VERGIFTIGING SKAKEL 0861 555777 / 0824468946

Batch No: **Lotnommer:**
Date of Manufacture: **Datum van Vervaardiging:**

UN No./VN Nr. Not regulated/ nie gereguleer nie



Pamphlet

PHOSGUARD 400 SL

Reg. No. L6477, Act No. 36 of 1947
Botswana Reg. No. W130157, Act No. 18 of 1999
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CAUTION

WARNINGS:

ALLOW THE FOLLOWING WITHHOLDING PERIODS BETWEEN LAST APPLICATION AND HARVESTING:

CITRUS, WINE AND TABLE GRAPES	**28 DAYS**
POTATOES	**21 DAYS**
PINEAPPLES	**SHOULD NOT BE SPRAYED WITHIN 6 WEEKS OF FLOWER INDUCTION**

Handle with care.
Harmful if swallowed.
May cause skin and eye irritation.
Store in a cool dry place, away from food and feedstuffs.
Keep out of reach of children, animals and uninformed persons.
Re-entry – Do not enter treated area until spray deposit has dried unless wearing protective clothing.
In case of poisoning – CALL A DOCTOR AND MAKE THIS LABEL AVAILABLE TO HIM.

NOTE: Maximum residue limits (MRL) have been determined for **Phosguard 400 SL** in South Africa. These values are based on considerations for "good agricultural practice" (GAP). In several countries of the world (e.g. The USA and many Middle Eastern and Mediterranean countries) phosphorous acid formulations are regarded as fertilizers rather than fungicides and since MRL's are not required for fertilizer products, these countries have neither established nor approved MRL values for phosphorous acid products. There are also other countries where phosphorous acid is neither used as a fertilizer nor as a fungicide. Difficulties could therefore be experienced in exporting fruit from **Phosguard 400 SL** treated trees and vines to countries that have not established MRL values for phosphorous acid fungicides. Growers wishing to export their produce are recommended to discuss this matter with their export agents or with a representative of Nulandis.

ALTHOUGH THIS REMEDY HAS BEEN EXTENSIVELY TESTED UNDER A LARGE VARIETY OF CONDITIONS THE REGISTRATION HOLDER DOES NOT WARRANT THAT IT WILL BE EFFICACIOUS UNDER ALL CONDITIONS BECAUSE THE ACTION AND EFFECT THEREOF MAY BE AFFECTED BY FACTORS SUCH AS ABNORMAL SOIL, CLIMATIC AND STORAGE CONDITIONS, QUALITY OF DILUTION WATER, COMPATIBILITY WITH OTHER SUBSTANCES NOT INDICATED ON THE LABEL AND THE OCCURRENCE OF RESISTANCE OF THE DISEASE TO THE REMEDY CONCERNED AS WELL AS BY THE METHOD, TIME AND ACCURACY OF APPLICATION. THE REGISTRATION HOLDER FURTHERMORE DOES NOT ACCEPT RESPONSIBILITY FOR DAMAGE DONE 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 spray mist.
Wear rubber gloves, boots, face shield and overall whilst mixing and applying.
Wash with soap and cold water after application or skin contamination.
Wash contaminated clothing after application.
Do not eat, drink or smoke whilst applying or before washing hands and face.
Prevent contamination of food, feedstuffs, drinking water and eating utensils.
Prevent spray drift onto other crops, grazing or any other areas not under treatment.
Clean applicator thoroughly with **FLUSHSOL** before re-using and dispose of wash water where it will not contaminate crops, grazing, rivers and dams. Refer to the **FLUSHSOL** label for directions of use.
When **Phosguard 400 SL** is applied as a foliar spray, rinse the empty **Phosguard 400 SL** containers three times with a volume of water equal to one tenth of the volume of the container and add rinsings to the spray solution in the spray tank. Then destroy the container by perforation and flattening.
When using **Phosguard 400 SL** as trunk paint, rinse empty containers thoroughly and dispose of waste rinsing water where it will not contaminate crops, grazing, rivers or dams. Then destroy the container by perforation and flattening.
Do not use container for any other purpose.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED

COMPATIBILITY:

- **Phosguard 400 SL** trunk paints should not be combined with other pesticides.
- **Phosguard 400 SL** spray application is compatible with **Biodew** (Reg. No. L8120, Act No. 36 of 1947), **Chloroflo 500 SC** (Reg. No. L5171, Act No. 36 of 1947), **Ventum 800 WP** (Reg. No. L8691, Act No. 36 of 1947), various other agricultural remedies and foliar feed products. Tank mixes with Megafol, mineral oils, dimethoate, wettable sulphur, copper-containing products, high calcium containing products or highly alkaline products is, however, not recommended.
- It is important in the case of citrus that **Phosguard 400 SL** be applied as an ultra light cover spray. Pesticides and foliar feeds requiring application as high volume sprays should therefore be regarded as being incompatible with **Phosguard 400 SL** in practical terms.
- Consult the registration holder of this product for further details on compatibility with other agricultural pesticides.

IMPORTANT NOTES:

Avoid application when trees or vines are under stress as this may cause a phytotoxic response damaging both leaves and fruit. Heat stress, drought stress, stress caused by excess soil water, and stress caused by heavy cropping are all forms that have been problematic in the past. Easy peeler citrus which tend to set very heavy crops should not be sprayed close to harvest.
Do not apply sprays under conditions of oxygen depravation at root level, e.g. within six days after heavy rains, or at any time when the soil is so saturated with water to the extent that oxygen is displaced for the soil profile and roots are deprived of oxygen for a period of time, the stress will increase the longer the saturation persists. Sprays should only be applied when the matrix potential is between –18 and –50 kPa. This problem seems to be specific for citrus but may occur on other crops.
Trees and vines should not be treated when suffering from stress as such conditions, even when temporary, may lead to a phytotoxic response (e.g. leaf and fruit burn and gummosis).
Phosguard 400 SL must thus only be applied to actively growing trees, vines and plants.
Do not apply **Phosguard 400 SL** within 7 days (before or after) a copper application.
Although **Phosguard 400 SL** is neutralized it may still be corrosive to metal. Use plastic or glass fiber containers when applying as trunk paints.
Treatment against *Phytophthora* root and collar rot is more effective when applied as preventative, rather than as curative treatments. **Phosguard 400 SL** applications should ideally commence before the first visual symptoms of decline occur, and preferably not later than stage 4 on the 0 to 10 scale of decline as described in “Outspan Production Guidelines Part 3”.

MIXING INSTRUCTIONS:

Preparation of the **Phosguard 400 SL** spray solution is best achieved by filling the spray tank to approximately 50% of capacity with clean water, start agitation, add the required amount of **Phosguard 400 SL** to the water. **Phosguard 400 SL** will go into solution immediately. It is, however, necessary to make sure that the **Phosguard 400 SL** is completely dissolved before additional (compatible) substances are added. Follow the manufacturers mixing instructions for such substances. With the agitation engaged complete the filling of the spray tank with water. Wetters, if used, should be added last of all to prevent excessive foam generation.

General comment:
If any doubt exists on any aspect concerning this label contact the registration holder of this product for further information.

<u>RECOMMENDATIONS FOR CONTROL OF *PHYTOPHTHORA* ROOT AND CROWN ROT IN CITRUS</u>

<u>General Recommendations</u>**:**

- Foliar spray or stem paint treatments should commence after the start of the rain season and repeat applications with 6 to 8 week intervals, during the rain season.
- To facilitate systemic translocation of **Phosguard 400 SL** to roots of citrus trees, avoid treating when trees are flushing strongly. Under such conditions it will be preferable to delay the application until the new flush begins to harden off.

<u>Recommendations for Foliar Application</u>**:**

- Prepare and apply a spray solution by diluting **Phosguard 400 SL** at a rate of:

Phosguard 400 SL at 500 mℓ/100 ℓ of water (use 1 800 to 2 000 ℓ of spray solution/ha)

- Apply sprays as **ultra light** cover sprays using 1 800 to 2 000 ℓ spray solution/ha for medium and large trees. Use proportionally less for smaller trees. Higher spray volumes may give inferior results due to excessive run off, and may cause damage to leaves and fruit. Spraying with handguns is generally preferred for smaller trees since growers will experience difficulties calibrating mist blowers to deliver lower volumes per hectare.
- Sprays should be applied to trees at high turgidity to avoid leaf burn. For this reason spraying should be confined to early morning or late afternoon. As a general guide, it is advisable that spraying operations be stopped at approximately one hour before air temperatures are expected to reach 30°C.
- Do not apply soon after irrigation or heavy rains (see comment under directions for use).

<u>Recommendations for Stem Application</u>:

- For trunk treatment dilute **Phosguard 400 SL** with an equal volume of water.
- Apply by painting the whole trunk from ground level upwards for about 35 cm.
- Where graft incompatibility occurs, apply by painting the scion and lower scaffold branches only.
- Certain scion / rootstock combinations may be sensitive. Confirmation of tolerance of the specific scion / rootstock combination is therefore recommended.

<u>RECOMMENDATIONS FOR DOWNY MILDEW CONTROL IN TABLE AND WINE GRAPES</u>

- Apply as a foliar spray combining

Phosguard 400 SL at 300 mℓ/100 ℓ water (0.12% a.i.)
+
Ventum 800 WP at 120 g/100 ℓ water

- Apply when shoots are 10 to 15 cm in length and repeat at 10 to 14 day intervals depending on the frequency and duration of infection periods. Spray intervals may need to be reduced to 7 day intervals when weather conditions are very favourable for disease development. Under extreme conditions during the blossom period and where inclement weather conditions have caused serious disruptions of the spray program, spray intervals should reduce to 5 day intervals for two to three sprays, reverting to 10 to 14 day spray intervals as conditions improve.
- Sprays should be applied as normal high volume sprays to provide good coverage of both the leaves as well as of the developing grape bunches. Over-wetting of vines should be avoided as these results in run-off and loss of the active ingredient. Spray volumes should therefore conform to the guideline of "ARC – Infruitec-Nietvoorbij", which provide the following indications:

Growth Stage	Volume of spray solution required per hectare	
	Table grapes	Wine grapes
Shoot length 2.5 to 25 cm	500 - 750 ℓ	250 - 500 ℓ
25 cm shoot length to pre-flowering	750 - 1 000 ℓ	500 - 750 ℓ
Flowering to pea-size berries	1 000 - 1 200 ℓ	750 - 1 000 ℓ
Pea-size berries to harvest	1 200 - 1 500 ℓ	1 000 - 1 200 ℓ

Bush vines, due to the greater density of their canopies, would require similar spray volumes to table grapes.

- Sprays should continue until berries reach pea-size stage. Under abnormally high disease pressure when foliage needs to be protected after berries reach pea-size stage, continued spraying with the above may lead to visible spray deposits on berries because of the (mancozeb) component in the mixture. Under such conditions continued spraying with **Phosguard 400 SL** on its own using 300 mℓ/100 ℓ will provide useful protection of the leaf canopy without leaving visible residues.
- Although berries are resistant to infection once at "pea size", the berry stems or peduncles remain sensitive to infection. Peduncle infection occurring later in the season will cause individual berries, or sections of the bunch, to shrivel. This condition has not been encountered in trials to date and specific recommendations can therefore not be made, but protection against mid summer leaf infection could be expected to benefit bunch quality at harvest.
- Sprays should be applied to vines at high turgidity to avoid leaf burn. For this reason spraying should be confined to early morning or late afternoon. As a general guide, it is advisable that spraying operations be stopped at approximately one hour before air temperatures are expected to reach 30°C.
- The addition of a wetter (e.g. **Biodew**) to **Phosguard 400 SL** / **Ventum 800 WP** spray mixture will improve wetting of the fruit and foliage. Over-wetting may, however, occur when additional pesticides are included as tank mixtures and under such conditions it may be better to exclude the wetting agent from the spray. Careful attention therefore needs to be paid to the wetting properties of the spray when combination sprays are used.
- Do not apply higher rates than recommended as this may cause damage to foliage.

RECOMMENDATIONS FOR THE CONTROL OF *PHYTOPHTHORA* ROOT AND HEART ROT IN PINEAPPLES

Recommendation for dip treatment of planting material before planting**:**

- Dip (by total immersion) planting material (crowns, suckers, or slips) for 10 minutes in a solution containing:

Phosguard 400 SL at 500 to 750 mℓ per 100 ℓ water

- Dipping of plant material will afford pineapple plants protection against *Phytophthora* attack at planting. Crown dipping permits freshly harvested planting material to be planted without plants rotting in the field.
- Compatibility between **Phosguard 400 SL** dipping solutions and other pesticides must be confirmed before being applied on a commercial scale.

Recommendation for foliar application**:**

1. Prepare and apply a spray solution by diluting **Phosguard 400 SL** at a rate of;

   10 ℓ per ha and apply as foliar spray in 1 000 to 2 000 ℓ of water per ha
   (i.e. 500 to 1 000 mℓ **Phosguard 400 SL**/100 ℓ water)

2. Sprays should be applied during periods of active growth closest to periods of anticipated *Phytophthora* risk i.e. in autumn and spring. Repeat sprays at intervals of 2 - 3 months but avoid spraying during periods of dormancy caused by water, cold, or heat stress.
3. Do not apply more than five sprays per annum.
4. At least 6 weeks should elapse between the last spray and fruit induction. Shorter intervals may result in poor induction efficiency.
5. Application during the fruit maturation phase is not recommended.

RECOMMENDATION FOR THE CONTROL OF LATE BLIGHT ON POTATOES

Phosguard 400 SL at 400 mℓ
+
Chloroflo 500 SC at 100 mℓ /100 ℓ water

- Apply **Phosguard 400 SL** in combination with **Chloroflo 500 SC** but ensure that you add the **Phosguard 400 SL** to the spray water before adding the **Chloroflo 500 SC**.
- Add **Phosguard 400 SL** to the spray water at a rate of 400 mℓ/100 ℓ of water following the directions given above. Continue filling the spray tank while agitating the spray solution and add the **Chloroflo 500 SC** at 100 mℓ/100 ℓ of water.
- Spraying should start in areas and seasons of high risk at 21 days from emergence or sooner when conditions for infection are favourable. Some districts have late blight warning systems that could be helpful. Early sprays at 14 and 21 days from emergence are best applied as directed sprays over the row.
- Sprays should be repeated at weekly intervals under conditions of high disease pressure. It is, however, important to maintain good disease control in the early season. Therefore, if late blight threatens to gain a foothold due to a break in the spray program, or for any other reason, the spray interval should be shortened to 5 days. The target required is that plants should be 95% blight free (or better) at all times.
- Sprays should be applied as conventional high volume sprays ensuring good coverage of the leaves and stems of the haulms. Spray volumes of 500 to 600 ℓ/ha are intended at first cover spray, increasing to 1 000 ℓ at full canopy. Canopies that are over fertilized may be excessively dense and may require even higher spray volumes.
- Lower spray volumes can be used provided the per hectare spray rate of fungicide is maintained. It is intended that the **Phosguard 400 SL** dosage per hectare should be 2.0 to 2.5 ℓ at first cover increasing to 4.0 to 4.5 ℓ/ha at full canopy. The **Chloroflo 500 SC** dosage per hectare would be 25% of that of the **Phosguard 400 SL** dosage. Growers should note that the lower the spray volume the more critically important the factors of droplet size, distribution, and penetration become. Correct and appropriate calibration of the low volume sprayer is therefore required. Failures have occurred where this was not the case.
- At present the **Phosguard 400 SL** / **Chloroflo 500 SC** treatment is recommended as a program of weekly sprays. Limited data is currently available on the introduction of other products into the program. Such introductions could be either synergistic or even antagonistic. The introduction of other products for late blight control into the program is therefore not currently recommended.

BIODEW® & **FLUSHSOL**® are the registered trademarks of AECI Limited (Nulandis™ a division of AECI Ltd.)

Chloroflo 500 SC & Ventum 800 WP are the registered tradenames of Nulandis™ (A division of AECI Ltd.)

Pamflet

PHOSGUARD 400 SL

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Botswana Reg. No. W130157, Act No. 18 of 1999
Namibiese Reg. Nr. N-AR 1666
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‘n Sistemiese wateroplosbare vloeistof swamdoder vir die beheer van siektes wat veroorsaak word deur Oömycetes op verskeie gewasse soos aangedui op die etiket.

SWAMDODERGROEPKODE 33

ATIEWE BESTANDDEEL:

Fosforigsuur ekwivalent ………..400 g/ℓ
Kaliumfosfiet ………..560 g/ℓ

<u>REGISTRASIEHOUER</u>:

Nulandis® (‘n Afdeling van AECI Beperk)
Reg. Nr. 1924/002590/06
Posbus 14418

Witfield, 1467
Tel : (011) 823 8000

VERSIGTIG

<u>WAARSKUWINGS</u>:

LAAT DIE VOLGENDE AANTAL DAE TOE TUSSEN DIE LAASTE TOEDIENING EN OES:

AARTAPPELS: 21 DAE
SITRUS, WYN- EN TAFELDRUIWE : 28 DAE
PYNAPPELS : MOENIE BINNE SES WEKE VANAF BLOMINDUKSIE TOEGEDIEN WORD NIE.

Hanteer versigtig.
Skadelik indien ingesluk.
Mag vel- en oogiritasie veroorsaak.
Berg in ‘n koel, droë plek, weg van voedsel en voer.
Hou buite bereik van kinders, diere en oningeligte persone.
<u>Herbetreding</u>: Moenie behandelde gebied betree alvorens die spuitneerslag droog is nie, tensy beskermende oorklere gedra word.
In geval van vergiftiging - ONTBIED 'N GENEESHEER EN STEL HIERDIE ETIKET AAN HOM BESKIKBAAR.

LET WEL: Maksimum residuvlakke (MRL) is vasgestel vir **Phosguard 400 SL** in Suid-Afrika. Hierdie waardes is gebaseer met inagneming “van goeie landboupraktyke” (GAP). In verskeie lande wêreldwyd (byvoorbeeld die VSA, Midde-Ooste en Mediterreense lande) word fosforige-suurformulasies as bemestingstowwe eerder as swamdoders beskou waarvoor geen MRL-vlakke benodig word nie. Hierdie lande het ook geen goedgekeurde, vasgestelde MRL-waardes vir fosforigsuur produkte nie. Probleme kan ondervind word wanneer vrugte en wingerd wat behandel is met **Phosguard 400 SL** na lande sonder vasgestelde MRL-vlakke uitgevoer word. Boerderye wat uitvoerprodukte produseer, moet hierdie saak met die plaaslike uitvoeragent of met ‘n Nulandis verteenwoordiger bespreek.

ALHOEWEL HIERDIE MIDDEL OMVATTEND ONDER ‘N GROOT VERSKEIDENHEID TOESTANDE GETOETS IS WAARBORG DIE REGISTRASIEHOUER NIE DAT DIT ONDER ALLE TOESTANDE DOELTREFFEND SAL WEES NIE AANGESIEN DIE WERKING EN EFFEK DAARVAN BEÏNVLOED KAN WORD DEUR FAKTORE SOOS ABNORMALE KLIMAATS- EN BERGINGSTOESTANDE, KWALITEIT VAN VERDUNNINGSWATER, VERENIGBAARHEID MET ANDER STOWWE WAT NIE OP DIE ETIKET AANGEDUI IS NIE EN DIE VOORKOMS VAN WEERSTAND VAN DIE SIEKTE TEEN DIE BETROKKE MIDDEL SOWEL AS DIE METODE, TYD EN AKKURAATHEID VAN TOEDIENING. VERDER AANVAAR DIE REGISTRASIEHOUER NIE VERANTWOORDELIKHEID VIR SKADE AAN GEWASSE, PLANTEGROEI, DIE OMGEWING OF VIR NADELIGE EFFEK OP MENS OF DIER OF VIR ‘N GEBREK AAN PRESTASIE VAN DIE BETROKKE MIDDEL AS GEVOLG VAN DIE VERSUIM VAN DIE GEBRUIKER OM ETIKETSAANWYSINGS 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.

<u>VOORSORGMAATREËLS:</u>

Moenie sproeinewel inasem nie.
Dra rubberhandskoene, stewels, gesigmasker en 'n oorpak gedurende vermenging en toediening van die produk.
Was met seep en koue water na toediening of besoedeling van die vel.
Was besoedelde klere na toediening.
Moenie eet, drink of rook tydens vermenging of toediening of voordat hande en gesig gewas en skoon klere aangetrek is nie.
Verhoed besoedeling van voedsel, voer, drinkwater en eetgerei.
Verhoed die wegdrywing van sproeinewel na nie-teiken gewasse, weiding, riviere en damme en ander gebiede wat nie onder behandeling is nie.
Maak spuitapparaat met **FLUSHSOL** skoon na gebruik en moenie ander gewasse, weiding, riviere of damme met waswater besoedel nie. Verwys na **FLUSHSOL** etiket vir gebruiksaanwysings.
Wanneer **Phosguard 400 S**L as 'n blaarbespuiting toegedien word, moet die leë **Phosguard 400 SL** produkhouers drie keer met 'n volume water gelykstaande aan een tiende van die volume van die produkhouer waarby spoelmiddels gevoeg is in die spuittenk gegooi word. Vernietig die gebruikte produkhouers deur die houers te perforeer en plat te druk.
Wanneer **Phosguad 400 SL** as 'n stamverftoediening gebruik word, moet die leë produkhouers deeglik uitgespoel en vernietig word. Verhoed dat die besoedelde water nie gewasse, weiding, riviere en damme besoedel nie. Die leë produkhouers moet daarna geperforeer en platgedruk word. Moenie die leë produkhouers vir enige ander doel gebruik nie.

<u>GEBRUIKSAANWYSINGS</u>: GEBRUIK SLEGS SOOS AANGEDUI

<u>VERENIGBAARHEID</u>:

Phosguard 400 SL stamverf **moenie** saam met ander plaagdoders gemeng word nie.
Phosguard 400 SL spuittoedienings is mengbaar met;
Biodew (Reg. Nr. L8120, Wet Nr. 36 van 1947), **Chloroflo 500 SC** (Reg. Nr. L5171, Wet Nr. 36 van 1947) en **Ventum 800 WP** (Reg. Nr. L8691, Wet Nr. 36 van 1947).
Tenkmengsels met Megafol, mineraalolies, dimetoaat, benatbare swael, koper-bevattende produkte óf produkte met 'n hoë alkaliese inhoud, word nie vir gebruik aanbeveel nie.
In die geval van toediening op sitrus is dit belangrik dat dit as 'n ultra lae volume dekbespuiting toegedien word.
Plaagdoders en blaarvoedingsprodukte wat as 'n hoë volume toegedien word, moet in die praktyk as nie-mengbaar beskou word.
Raadpleeg die produk se registrasiehouer vir verdere besonderhede met betrekking tot mengbaarheid met ander landboumiddels.

<u>BELANGRIKE NOTAS</u>:

Vermy toediening indien bome of wingerd onder stres verkeer aangesien dit 'n fitotoksiese uitwerking mag veroorsaak wat beide die blare en vrugte kan beskadig. Hitte-stres, droogte-stres, versuipingstoestande en stres versoorsaak deur 'n te hoë plantpopulasie is voorbeelde wat in die verlede problematies was. Sitrus kultivars wat maklik skil (Easy peelers) en wat daartoe geneig is om 'n te hoë vrugdrag te produseer, mag nie naby oestyd gespuit word nie.
Moenie toedien tydens toestande waar lae suurstofvlakke in wortelsone voorkom, byvoorbeeld binne ses dae na swaar reënval of enige tyd waar versuiptoestande tot so 'n mate heers dat suurstof uit die grondprofiel onbeskikbaar vir wortels is en dus die plant onder stres plaas. Hierdie stres sal toeneem so lank die grondversadigingsvlak voortduur. Toedienings mag slegs plaasvind wanneer die "Matrix" potensiaal tussen -18 en -50 kPa is. Hierdie probleem kom spesifiek by sitrus voor, maar kan ook 'n probleem by ander gewasse wees.
Bome en wingerd mag nie onder strestoestande behandel word nie omdat sulke toestande, selfs tydelik, tot fitotoksiese toestande (byvoorbeeld blaar- en vrugbrand en gomsiekte) mag lei.
Phosguard 400 SL moet dus slegs op aktiefgroeiende bome, druiwe en ander plante toegedien word. Moenie **Phosguard 400 SL** binne sewe dae (vóór of na) 'n koper-bevattende produk toedien nie.
Alhoewel **Phosguard 400 SL** geneutraliseer is, mag dit steeds invretend wees met metaal. Gebruik plastiek- of glasveselhouers wanneer plante se stamme geverf word. Behandeling van *Phytophthora* wortel- en kraagvrot is meer effektief wanneer dit voorkomend eerder as 'n kuratiewe behandeling toegedien word. **Phosguard 400 SL** toedienings behoort ideaal in aanvang te neem voordat die eerste visuele simptome van

groeiafname voorkom en verkieslik nie later as stadium 4 op ‘n 0 – 10 puntgroeiafnameskaal soos beskryf in “Outspan Production Guidelines Part 3 .”
VERMENGINSTRUKSIES:

Voorbereiding van die **Phosguard 400 SL** spuitoplossing is die beste wanneer die spuittenk met ongeveer 50% van die kapasiteit met skoon water gevul en geroer word, terwyl die vereiste hoeveelheid **Phosguard 400 SL** in die water gevoeg word. **Phosguard 400 SL** sal onmiddellik in die water oplos. Verseker dat **Phosguard 400 SL** volledig opgelos is voordat ander produkte bygevoeg word. Volg die menginstruksies van ander produkte. Vul die tenk met water nadat al die produkte opgelos is. Indien ‘n benattingsmiddels gebruik word, moet dit laaste bygevoeg word om oormatige skuimvorming te voorkom.

Algemene opmerking:
Indien daar enige twyfel met betrekking tot enige aspek van hierdie etiket bestaan, moet die registrasiehouer van hierdie produk vir verdere inligting gekontak word.

AANBEVELINGS VIR DIE BEHEER VAN *PHYTOPHTHORA* WORTEL- EN KRAAGVROT IN SITRUS

Algemene aanbevelings:

- Blaarbespuitings óf stamverfbehandelings moet in aanvang neem na die aanvang van die reënseisoen en herhaal bespuitings met ses tot agt weke intervalle gedurende die reënseisoen .
- Sistemiese translokasie van **Phosguard 400 SL** na die wortels van die sitrusbome word bevoordeel, indien die produk nie tydens nuwe blaargroei toegedien word nie. Onder hierdie toestande moet behandeling uitgestel word, totdat die nuwe blaargroei begin verhard.

Aanbevelings vir blaartoediening:

Berei en dien 'n spuitoplossing toe deur **Phosguard 400 SL** teen die volgende dosis te verdun:

Phosguard 400 SL teen 500 mℓ/ 100 ℓ water (Gebruik 1 800 ℓ tot 2 000 ℓ spuitoplossing per hektaar)

Dien bespuitings as ultra lae dekbespuitings toe deur 1 800 ℓ tot 2 000 ℓ spuitoplossing per hektaar vir medium en groot bome te gebruik. Gebruik proporsioneel minder vir kleiner bome. Hoë spuitvolumes kan swakker resultate lewer omdat oortollige spuitstof van die bome afloop en dit mag skade op blare en vrugte tot gevolg hê. Toediening met behulp van "handguns" word oor die algemeen vir kleiner bome verkies omdat 'n mens sukkel om miswaaierspuite te kalibreer om laer volumes water per hektaar te lewer.
Bespuitings behoort op bome met 'n hoë selwandspanning toegedien te word om blaarbrand te vermy. Om hierdie rede moet bespuitings beperk word tot vroegoggend en laatmiddag. Dit word as 'n algemene riglyn aanbeveel dat bespuitings gestaak word op ongeveer een uur voordat die lugtemperatuur 30 °C bereik.
Moenie toedien kort na besproeiing óf swaar reën nie. (Verwys na opmerkings onder gebruiksaanwysings).

Aanbevelings vir stamtoediening:

- Vir stambehandelings moet **Phosguard 400 SL** in gelyke hoeveelheid volume water opgelos word.
- Dien toe deur die hele stam vanaf grondvlak opwaarts vir ongeveer 35 cm te verf.
- Verf slegs die entloot (bo-stam) en laagste takke indien ent-onverenigbaarheid voorkom.
- Sekere ent-/onderstam kombinasies mag sensitief vir dié behandeling wees. Die bevestiging van die toleransie van die spesifieke ent-/onderstam kombinasie word aanbeveel, veral waar ongewone ent-/onderstam kombinasies gebruik word.

AANBEVELINGS VIR DIE BEHEER VAN DONSIGE MEELDOU OP TAFEL- EN WYNDRUIWE

- Dien as 'n blaarbespuiting in kombinasie toe

Phosguard 400 SL teen 300 mℓ /100 ℓ water (0.12% aktief)
Plus
Ventum 800 WP teen 120 g/100 ℓ water

- Dien toe wanneer die lote 10-15 cm in lengte is en herhaal met 10-14 dae intervalle afhangende van die frekwensie en duurte van die infeksieperiodes. Spuitintervalle mag verkort word na 7-dag intervalle wanneer weerstoestande vir swamontwikkeling gunstig word. By ekstreme toestande tydens die blomperiode en waar ongure weerstoestande ernstige onderbreking van die spuitprogram tot gevolg het, moet spuitintervalle verkort word na 5-dag intervalle vir 2-3 bespuitings en aangepas word tot die 10-14 dag spuitintervalperiode soos weerstoestande verbeter.
- Bespuitings moet as normale hoë volume bespuitings uitgevoer word om goeie bedekking vir beide blare en ontwikkelende druiwetrosse te verseker. Oorbenatting van wingerde moet vermy word omdat dit aanleiding mag gee tot oormatige afloop en verlies van die aktiewe bestanddeel. Spuitvolumes moet dus aangepas word by die riglyne wat deur die " LNR – Infruitec – Nietvoorbij " verskaf , word. Die volgende riglyne moet gevolg word:
-

GROEISTADIUM	**BENODIGDE VOLUME SPUITOPLOSSING PER HEKTAAR**	
	Tafeldruiwe	**Wyndruiwe**
Lootlengte 2.5 tot 25 cm	500-750 ℓ	250-500 ℓ
25 cm lootlengte tot vóór blom	750-1000 ℓ	500-750 ℓ
Blomstadium tot ertjiekorrelgrootte	1 000-1 200 ℓ	750-1 000 ℓ
Ertjiekorrelgrootte tot oes	1 200-1 500 ℓ	1 000-1 200 ℓ

As gevolg van boswingerd se groter kroondigtheid word dieselfde spuitvolume as vir tafeldruiwe gebruik.

- Bespuitings moet volgehou word totdat die korrels ertjiekorrelgrootte bereik het. Onder abnormale hoë siektedruk, wanneer blare beskerming benodig, mag volhoue bespuiting met bogenoemde lei tot visuele spuitresidu's op korrels, omdat die (mankoseb) komponent in die mengsel voorkom. Onder sodanige toestande sal volgehoue toediening met **Phosguard 400 SL** op sy eie teen 'n dosis van 300 mℓ /100 ℓ water genoegsame bedekking, sonder visuele residu verseker.
- Alhoewel korrels bestand is teen infeksie sodra hulle ertjiekorrelgrootte bereik het, bly hierdie korrels se stamme en steeltjies sensitief vir infeksie. Infeksie van die steeltjies wat later in die seisoen voorkom, sal individuele korrels of gedeeltes van die tros laat uitdroog. Sodanige toestand het tot op datum nie in proewe voorgekom nie en daarom kan geen spesifieke aanbeveling gemaak word nie, maar beskerming teen mid-somer blaarinfeksie kan veroorsaak dat troskwaliteit tydens oes verbeter.
- Bespuiting op wingerd moet met 'n hoë selwandspanning gedoen word om blaarbrand te verhoed. Bespuitings moet vir dié rede tot vroegoggend of laatmiddag beperk word. Dit word as 'n algemene riglyn aanbeveel dat spuitoperasies ongeveer een uur voordat lugtemperatuur 30°C bereik, gestaak word.
- Die byvoeging van 'n benatter (byvoorbeeld **Biodew**) gemeng met **Phosguard 400 SL / Ventum 800 WP** spuitmengsel, sal die benatting van die vrugte en blare verbeter. Oorbenatting kan egter voorkom wanneer bykomende plaagdoders in die tenkmengsel ingesluit word en onder sulke omstandighede is dit beter om die benattingsagent uit te laat. Let noukeurige op wat die benattingsprodukte se eienskappe van die bespuiting is indien 'n kombinasie bespuitings gedoen word.
- Moenie hoër dosisse as aanbeveel, gebruik nie omdat dit blaarskade kan veroorsaak.

AANBEVELINGS VIR DIE BEHEER VAN *Phytophthora* WORTEL- EN HARTVROT IN PYNAPPELS

Aanbevelings vir doopbehandeling van plantmateriaal vóór plant:

- Doop (totale onderdompeling) plantmateriaal (krone, lote, suiers of steggies) vir 10 minute in 'n mengsel bestaande uit

  Phosguard 400 SL teen 500 tot 750 mℓ /100 ℓ water

- Doop van plantmateriaal sal pynappelplante teen *Phytophthora* aanvalle tydens plant beskerm. Die doop van krone verseker vars geoeste plantmateriaal om uit te plant sonder plantverrotting in die veld.
- Verenigbaarheid met **Phosguard 400 SL** en ander doopoplossings van ander plaagbeheermiddels moet eers nagegaan word voordat dit op kommersiële skaal gebruik kan word.

Aanbevelings vir blaartoediening:

1. Berei en dien toe as 'n spuitoplossing deur **Phosguard 400 SL** te verdun met 'n dosis van;

   10 ℓ produk / ha en dien toe as 'n blaarbespuiting in 1 000 tot 2 000 ℓ water per hektaar
   (Byvoorbeeld 500 tot 1 000 mℓ **Phosguard 400 SL / 100 ℓ water**)

2. Bespuitings moet toegedien word gedurende aktiewe groeiperiodes naaste aan die verwagte periode vir *Phytophthora* risiko, bv. herfs en lente. Herhaal bespuitings met intervalle van twee tot drie maande maar verhoed bespuitings gedurende die dormante periodes wat deur water-, koue- of hitte-stres veroorsaak word.
3. Moenie meer as vyf bespuitings per groeiseisoen toedien nie.

4. Daar moet minstens ses weke tussen die laaste toediening en vruginduksie verloop. Korter intervalle mag swak vruginduksie tot gevolg hê.

5. Toediening tydens die vrug se volwasse fase word nie aanbeveel nie.

AANBEVELINGS VIR DIE BEHEER VAN LAATROES OP AARTAPPELS

Phosguard 400 SL teen 400 mℓ
plus
Chloroflo 500 SC teen 100 mℓ / 100 ℓ water

- Dien **Phosguard 400 SL** in kombinasie met **Chloroflo 500 SC** toe, maar verseker dat **Phosguard 400 SL** eerste by die water gevoeg en gemeng word voordat **Chloroflo 500 SC** bygevoeg word.
- Voeg **Phosguard 400 SL** by die spuitwater teen 'n dosis van 400 mℓ /100 ℓ water per deur bovermelde aanwysings te volg. Gaan voort met die vul van die spuittenk deur voortdurend die spuitmengsel te roer en voeg die **Chloroflo 500 SC** teen 100 mℓ /100 ℓ water by.
- Begin bespuitings in gebiede en seisoene met 'n hoë risiko vanaf 21 dae na opkoms of vroeër indien toestande gunstig is vir infeksie. In sekere gebiede bestaan waarskuwingsisteme vir laatroes wat tot groot voordeel kan wees. Vroeë bespuitings vanaf 14 – 21 dae na opkoms word die beste toegedien as 'n gerigte bespuiting oor die ry.
- Toedienings moet met weeklikse intervalle herhaal word onder toestande van hoë siektedruk en dit is egter belangrik om 'n goeie siektebeheerprogram vroeg in die seisoen te handhaaf. Indien laatroes dreig om 'n houvas as gevolg van die onderbreking in die spuitprogram te kry, moet die spuitprogram intervalle na vyf dae verkort word. Die vereiste teiken van enige spuitprogram teen laatroes moet altyd 95% laatroes vry (of beter), ten alle tye wees.
- Bespuitings moet soos konvensionele hoë volume bespuitings toegedien word om deeglike bedekking van blare, stamme en stele te verseker. Spuitvolumes van 500 - 600 ℓ per hektaar word beoog vir die eerste dekbespuiting en dan verhoog na 1 000 ℓ tydens vol-blaredak. Plante wat meer bemesting, as wat nodig word ontvang, mag oormatig dig wees en daarom 'n hoër volume spuitmengsel benodig.
- Laer spuitvolumes kan per hektaar gebruik word met die voorwaarde dat die vereiste swamdoder dosis gehandhaaf word. Beoog dat die 1ste bespuiting **Phosguard 400 SL** tussen 2.0 tot 2,5 ℓ/ha moet wees, wat verhoog na 4.0 tot 4.5 ℓ/ha by vol-blaredak. Die **Chloroflo 500 SC** dosis per hektaar moet 25% van die **Phosguard 400 SL** dosis wees. Aartappelboere moet kennis neem dat hoe laer die spuitvolume is, hoe meer krities belangrik die volgende faktore is, naamlik druppelgrootte, druppelverspreiding en penetrasie. Die korrekte en geskikte kalibrasie van lae volume spuittoestelle is dus noodsaaklik. Mislukkings het voorgekom wat aan hierdie faktore toegeskryf kan word.
- Huidiglik word die **Phosguard 400 SL / Chloroflo 500 SC** behandeling as 'n weeklikse toediening voorgeskryf. Beperkte data is tans beskikbaar om ander produkte in die program in te sluit. Sodanige ander produkte kan sinergisties óf antagonisties reageer. Die insluiting van ander produkte vir die beheer van laatroes word dus op hierdie stadium nie aanbeveel nie.

BIODEW® & FLUSHSOL® is die geregistreerde handelsmerke van AECI Beperk (Nulandis® 'n afdeling van AECI Beperk)

Chloroflo 500 SC & Ventum 800 WP is die gergistreerde handelsname van Nulandis® ('n Afdeling van AECI Beperk)