

# TANOS®

## FUNGICIDE

Registration number/Registrasie nommer L6564 Wet/Act No./Nr. 36 van/of 1947

**READ THE LABEL BEFORE USE  
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

<b>GROUP CODE</b>	<b>X / 11</b>	<b>FUNGICIDE</b>
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<b>Organic preventive and curative fungicide (water dispersible granule) for the control of Late Blight (<i>Phytophthora infestans</i>) and Early Blight (<i>Alternaria solani</i>) on potatoes and tomatoes.</b>	<b>Organiese beskermende en genesende swamdoder (water disperseerbare korrel) vir die beheer van Laatroes (<i>Phytophthora infestans</i>) en Vroeë roes (<i>Alternaria solani</i>) op aartappels en tamaties.</b>
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**HAZARD STATEMENTS:**

- May be harmful if swallowed.
- May be harmful if inhaled.
- May cause an allergic skin reaction.
- Suspected of damaging fertility or the unborn child.
- May cause damage to organs eyes through prolonged or repeated exposure.
- Very toxic to aquatic life with long lasting effects.



**PRECAUTIONARY STATEMENTS:**

- Do not breathe mist/vapours/spray.
- Wash skin thoroughly after handling.
- Get medical advice/attention if you feel unwell.
- If on skin: wash with plenty of water.
- Collect spillage.
- Dispose of contents/container in accordance with applicable regulations.



**WARNING**

**ACTIVE INGREDIENTS / AKTIEWE BESTANDDEEL**

Cymoxanil (ethyl urea) .....	250 g/kg .....	Simoksaniil (etielurea)
Famoxadone (oxazolidinedione) .....	250 g/kg .....	Famoksadoon (oksasolidiendioon)
Nett Mass .....	3,5 kg .....	Netto Massa

**REGISTRATION HOLDER / REGISTRASIEHOUER**

**Corteva Agriscience RSA (PTY) LTD**  
 REG NO. 1991/003030/07  
 Block A, 2nd Floor, Lakefield Office Park, 272 West Avenue, Centurion SOUTH AFRICA  
 ® Trademark of Corteva Agriscience™ and its affiliated companies

Batch Number .....  
 Date of manufacture .....  
 Expiry Date .....

..... Lotnommer  
 ..... Vervaardigingsdatum  
 ..... Vervaldatum

**UN NUMBER: 3077**

Poisons Helpline: +27(0)861-555-777  
 Local Emergency No: +27(0)82-895-0621 (SA only)  
 24 Hour Emergency Tel No: +32-3-575-5555  
 Information Hotline Tel No: +27(0)12 683-5700

**WARNINGS**

**HAZARD STATEMENTS:**

- May be harmful if swallowed.
- May be harmful if inhaled.
- May cause an allergic skin reaction.
- Suspected of damaging fertility or the unborn child.
- May cause damage to organs eyes through prolonged or repeated exposure.
- Very toxic to aquatic life with long lasting effects.

**ALLOW THE FOLLOWING WITHHOLDING PERIOD BETWEEN LAST APPLICATION AND HARVEST:**

Potatoes .....	7 days
Tomatoes .....	3 days

- Handle with care.
- Keep out of reach of children, uninformed persons, and animals.
- Toxic to fish.
- Store away from food and feed. Store in original container, tightly closed, in a secure and well-ventilated room.
- Keep away from fire and sparks.
- Protect against humid air and water.
- Do not use on hydroponically grown crops or on any container-grown crops.

**AERIAL APPLICATION** - Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water or adjacent areas.

**DISCLAIMER:**

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the disease against the remedy concerned as well as by the method, time and accuracy of the application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or for lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

## **PRECAUTIONS:**

### **PRECAUTIONARY STATEMENTS:**

Do not breathe mist/vapours/spray.  
Wash skin thoroughly after handling.  
Get medical advice/attention if you feel unwell.  
If on skin: wash with plenty of water.  
Collect spillage.  
Dispose of contents/container in accordance with applicable regulations.

Prevent spray drift onto crops not under treatment, grazing or adjacent water sources.  
Do not contaminate streams, rivers, or dams.  
Avoid contact with skin, eyes, and clothing.  
Wash with soap and water after use and accidental skin contact.  
Do not eat, drink, or smoke whilst applying, mixing, before washing hands and face and change of clothing.  
Immediately after application, completely drain the spray equipment.  
Thoroughly rinse the sprayer and flush the hoses, boom, and nozzles with clean water. Loosen and physically remove visible deposits. Remove and clean nozzles, screens, and filters separately. Flush the entire system with clean water again.  
Do not clean spray equipment near a well, bore hole, fountain, or any other water sources.  
Do not contaminate crops, grazing, rivers, or dams with wash water.  
Containers and packages must be completely emptied before being disposed of.  
Shake out thoroughly into the mixing or spray tank before destroying the empty container.  
Never re-use the container for any other purpose.  
Do not contaminate food, feed, drinking water and eating utensils.  
Do not contaminate crop, rivers, and dams with wash water.

## **RELEVANT SUBSTANCES:**

<b>COMPONENT</b>	<b>CAS No.</b>	<b>Concentration</b>
Cymoxanil	57966-95-7	25,0%
Famoxadone	131807-57-3	25,0%
Sodium lignosulfonate, sulfomethylated	68512-34-5	>= 20,0 - < 25,0 %
Aromatic hydrocarbons, C10-13, reaction products with branched nonene, sulfonated, sodium salts	1258274-08-6	>= 3,0 - < 10,0 %
Fumaric acid	110-17-8	>= 1,0 - < 3,0 %
Lignin, Alkali, Reaction Products with Disodium Sulfite and Formaldehyde	105859-97-0	>= 1,0 - < 3,0 %
Sodium chloride	7647-14-5	>= 1,0 - < 3,0 %

## **FIRST AID MEASURES:**

### **Inhalation**

Move to fresh air. Consult a physician after significant exposure. Artificial respiration and/or oxygen may be necessary.

### **Skin contact**

Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. In the case of skin irritation or allergic reactions see a physician. Wash contaminated clothing before re-use.

### **Eye contact**

If easy to do, remove contact lens, if worn. Hold eye open and rinse slowly and gently with water for 15-20 minutes. If eye irritation persists, consult a specialist.

### **Ingestion**

Obtain medical attention. DO NOT induce vomiting unless directed to do so by a physician or poison control centre. If victim is conscious: Rinse mouth with water.

## **RESISTANCE WARNING**

**TANOS®** is a group code 27 / 11 fungicide. Any fungus population may contain individuals naturally resistant to **TANOS®** and other 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 **TANOS®** or any other group code 11 fungicides.

**TANOS®** is a mixture of cymoxanil (group code 27) and famoxadone (group code 11) fungicides having different modes of action. **TANOS®** can be alternated with other fungicides in group code X, providing that not more than 6 cymoxanil containing sprays are applied per crop per season. Both cymoxanil and famoxadone are active against Late Blight strains that are resistant to phenylamide fungicides.

To delay fungicide resistance:

- Avoid exclusive repeated use of fungicides from the same fungicide group code. Alternate or tank mix with products from different fungicide group codes.
- For tank mixing or alternation with products in fungicide group codes X or Y, refer to applicable individual product labels.
- Integrate the control methods (chemical, cultural, biological) into disease control programmes.

For specific information on resistance management contact the registration holder of this product.

## **DIRECTIONS FOR USE**

## **USE ONLY AS DIRECTED**

### **COMPATIBILITY**

**TANOS®** is compatible with Steward® (Reg. No. L 6322 Act No 36 of 1947), Curzate® Pro (Reg. No. L5698 Act No. 36 of 1947), Trimangol® (Reg. No. L5985 Act No. 36 of 1947), chlorothalonil SC, copper oxychloride and mancozeb and with most products which have neutral or acidic reactions, when applied according to their manufacturer's instructions. Do not tank mix with products that have alkaline reaction. Tank mixtures that have not been evaluated for physical compatibility and crop safety must first be tested on a limited scale. Consult the manufacturer in case of uncertainty.

## **GENERAL**

**TANOS**<sup>®</sup> consists of two unrelated highly active ingredients with unique modes of action namely: cymoxanil, a locally systemic fungicide with preventive and curative action and famoxadone, a preventive, residual fungicide active on spore formation and germination.

**TANOS**<sup>®</sup> is most effective when applied preventively or at the early stages of infections before symptoms are visible on the plants. Apply sufficient spray mixture per hectare to give a good spray coverage of the treated crops.

**TANOS**<sup>®</sup> must not be applied to any crop suffering from stress because of drought, water logging, low temperature, insect attack, nutrient or lime deficiency or other factors reducing crop growth.

Cymoxanil rapidly penetrates plant tissue while the famoxadone is left on the surface wax layers of the cuticle. **TANOS**<sup>®</sup> is rainfast three hours after application. If rain occurs within three hours after treatment, the product performance may be affected, and the application must be renewed.

## **MIXING INSTRUCTIONS AND CLEANING OF SPRAY EQUIPMENT**

Before using **TANOS**<sup>®</sup> make sure the spraying equipment is clean.

The required amount of **TANOS**<sup>®</sup> can be accurately weighed, or volumetrically measured. A standard volumetric calibrated measuring cylinder or jug, filled to the 200 ml mark is approximately equal to 100 g **TANOS**<sup>®</sup>. Pour **TANOS**<sup>®</sup> in measuring jug or cylinder and shake gently once or twice to determine the volume of product. A variance of up to 10 % can result when **TANOS**<sup>®</sup> is measured by means of the volumetric method.

Half fill the spray tank with water and start the agitator. Then add the required amount of **TANOS**<sup>®</sup> to the spray tank. Continue agitation while topping up the tank with required volume of water and while spraying.

## **AERIAL APPLICATION**

**TANOS**<sup>®</sup> can be applied aerially as part of a preventive spray programme provided the spray mixture is evenly distributed over the target area. Keep the loss of spray material to a minimum during application. To achieve this it is essential that the following requirements are met:

- In all cases the narrowest possible swath width of correctly calibrated aircraft should be used.
- Use at least 40 l water/ha in potatoes.
- Use the correct nozzles to deliver spray droplets with a VMD of 280 micron and a minimum of 40-50 droplets/cm<sup>2</sup> must be recovered on the target area.
- Maintain a flying height of 3 m above the target area at wind speeds of 0-8 km/h and 2 m at wind speeds of 8-15 km/h. Stop spraying if the wind speed exceeds 15 km/h.
- Do not spray if the difference between the wet and dry bulb readings, as determined by a swinging hygrometer, is more than 8°C.
- Do not spray under conditions of temperature inversion.
- Do not spray during the heat of the day.
- Do not spray plants which are excessively wet with dew or rain.
- Ensure that fields are accurately marked.
- Obtain assurance from the Aerial Spray Operator that the above requirements will be met.

CROP AND DISEASE	AMOUNT/HA	DETAILS OF SPRAY PROGRAMME
<p><b>TOMATOES</b> Late blight (<i>Phytophthora infestans</i>)</p> <p><b>AND</b></p> <p>Early blight (<i>Alternaria solani</i>)</p>	<p>500 g <b>TANOS®</b></p> <p><b>PLUS</b></p> <p>2 KG Mancozeb OR 1,5 l chlorothalonil OR 2,5 l Trimangol OR 2,5 kg copper oxychloride</p> <p><b>PLUS</b></p> <p>500 ml/ha BP Crop Oil (Reg. No L6802 Act No. 36 of 1947) OR 50 ml/100 l Agral 90 (Reg. No. L5279 Act No 36 of 1947)</p>	<p>Always follow a preventive late and early blight programme. Use <b>TANOS®</b> at any stage of crop development when environmental conditions become favourable for late blight infection (cool, overcast weather with rain or irrigation).</p> <p><b>See IMPORTANT below table.</b></p> <p>Apply as a full cover spray and depending on plant size in 500 – 1500 l water/ha. Apply <b>TANOS®</b> at spray intervals of 7-10 days, as part of a programme. Use the shorter interval when conditions are highly favourable for Early Blight or Late Blight development. Two to three back-to-back applications of <b>TANOS®</b> are recommended as part of a spray programme against late blight. Weekly alternation of <b>TANOS®</b> tank mixture with the maximum registered dosage rate of a contact fungicide (mancozeb, chlorothalonil, Trimangol® or copper oxychloride) can be used under moderate disease pressure as part of a spray programme against early blight. Do not apply more than 5 <b>TANOS®</b> applications per season or apply more than 3 back-to-back <b>TANOS®</b> applications. Alternate with other registered fungicides throughout the season.</p> <p>The application of <b>TANOS®</b> plus copper oxychloride tank mixture will result in improved control of bacterial speck caused by <i>Xanthomonas campestris</i>.</p> <p><b>The addition of BP Crop Oil @ 500 ml/ha or Agral 90 @ 50 ml/100 l spray mixture is recommended in tank mixture with TANOS® under all conditions.</b></p>

CROP AND DISEASE	AMOUNT/HA	DETAILS OF SPRAY PROGRAMME
<p><b>POTATOES</b> Late blight (<i>Phytophthora infestans</i>)</p> <p><b>and</b></p> <p>Early blight (<i>Alternaria solani</i>)</p>	<p><b>GROUND APPLICATION:</b> 500 g <b>TANOS®</b></p> <p><b>PLUS</b></p> <p>2 KG Mancozeb OR 1,5 l chlorothalonil SC OR 2,5 l Trimango</p> <p><b>PLUS</b></p> <p>500 ml/ha BP Crop Oil (Reg. No L6802) OR 50 ml/100 l Agral 90 (Reg. No. L5279)</p> <p><b>AERIAL APPLICATION:</b> 600 g <b>TANOS®</b></p> <p><b>PLUS</b></p> <p>2 kg Mancozeb OR 1,5 l chlorothalonil SC OR 2,5 l Trimangol</p> <p><b>PLUS</b></p> <p>500 ml/ha BP Crop Oil (Reg. No L6802)</p>	<p>Always follow a preventive late and early blight spray programme. Use <b>TANOS®</b> at any stage of crop development whenever environmental conditions become favourable for late blight infection (cool, overcast weather with rain or irrigation).</p> <p><b>See 'IMPORTANT' below table.</b></p> <p>Apply as a full cover spray and depending on plant size in 500–1500 l water/ha. Apply <b>TANOS®</b> at spray intervals of 7–10 days, as part of a programme. Use the shorter interval when conditions are highly favourable for Early Blight or Late Blight development. Two to three back-to-back applications of <b>TANOS®</b> are recommended as part of a spray programme against late blight. Weekly alternation of the <b>TANOS®</b> tank mixture with the maximum registered dosage rate of a contact fungicide (mancozeb, chlorothalonil or Trimangol®) can be used under moderate disease pressure as part of a spray programme against early blight.</p> <p><b><u>Apply as above when tractor application is not possible and adhere to the following additional conditions:</u></b></p> <p>Aerial application of <b>TANOS®</b> against late and early blight is <b>only recommended</b> when used in a <b>weekly preventive spray programme before infection occurs</b>. Applications should commence shortly post emergence of the crop. Minimum spray volume for <b>TANOS®</b> is 40 l/ha. <b>Aerial application results in weaker crop coverage, which may result in decreased disease control (late and early blight) in comparison to tractor applications.</b></p>

CROP AND DISEASE	AMOUNT/HA	DETAILS OF SPRAY PROGRAMME
POTATOES (cont.)	AERIAL APPLICATION (cont.)	<p><b>General:</b> Do not apply more than 5 <b>TANOS®</b> applications per season or apply more than 3 back to back <b>TANOS®</b> applications. Alternate with other registered fungicides throughout the season.</p> <p><b>The addition of BP Crop Oil @ 500 ml/ha or Agral 90 @ 50 ml/100 l spray mixture is recommended in tank mixture with TANOS® in potatoes under all conditions.</b></p>

**IMPORTANT**

**TANOS® has a curative action of up to 2 days against late blight. This means that TANOS® can control the fungus inside the plant up to two days after infection has occurred, BUT before late blight symptoms become visible. Late blight symptoms on leaves develop 2-3 days post infection. As late blight symptoms only become prevalent on stems after 10-14 days, curative action on stem blight cannot be expected under all conditions. Do not use TANOS® for eradication of late blight control when symptoms and especially stem lesions are visible within the plant canopy.**

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Trimangol® (L5985) is a registered product of Saadchem-Uniek Pty Ltd

**Local Emergency No: +27(0)82-895-0621 (SA only)**  
**24 Hour Emergency Tel No: +32-3-575-5555**  
**Information Hotline Tel No: +27(0)12 683-5700**



## **WAARSKUWINGS:**

### **RISIKOVERKLARINGS:**

Kan skadelik wees indien ingesluk.  
Kan skadelik wees indien ingeasem.  
Kan 'n allergiese velreaksie veroorsaak.  
Mag moontlik skade aan vrugbaarheid of die ongebore kind rig.  
Kan skade aan organe en oë veroorsaak deur langdurige of herhaaldelike blootstelling.  
Baie giftig vir waterlewe met langdurige effek.

## **LAAT DIE VOLGENDE ONTHOUDINGSPERIODE VERLOOP TUSSEN DIE LAASTE TOEDIENING EN OES.**

Aartappels .....	7 dae
Tamaties .....	3 dae

Hanteer versigtig.

Nadelig wanneer ingeneem of ingeasem word.

Hou buite bereik van kinders en oningeligte persone.

Giftig vir visse.

Bêre weg van voedsel en voer. Bêre in die oorspronklike houer, dig toegemaak, in 'n veilige en goed geventileerde plek.

Hou weg van vuur en vonke.

Verhoed blootstelling van die produk aan vogtige lug en water.

Moenie gebruik op gewasse wat in hidroponiese stelsels of in potte groei nie.

**LUGTOEDIENING** - Stel al die inwoners in die onmiddellike omgewing van die gebied wat bespuit gaan word in kennis en reik die nodige waarskuwings uit. Moet nie oor water of aangrensende gebiede spuit of die spuitstof daarheen laat wegdryf nie.

## **VRYWARING:**

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 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:**

### **VOORKOMENDE VERKLARINGS:**

Moenie mis/dampe/spuitnewel inasem nie.  
Was vel deeglik na hantering.  
Kry mediese advies/aandag as jy onwel voel.  
Indien op vel: was met baie water.  
Versamel verspilde produk.  
Raak ontslae van inhoud/houer weg in ooreenstemming met toepaslike regulasies.

- Vermoed inaseming van spuitnewel.
- Verhoed wegdrywing van die spuitnewel na gewasse nie onder behandeling nie, weiding of na naasliggende waterbronne.
- Voorkom besoedeling van riviere, waterstrome en damme.
- Vermoed kontak met vel, oë en klere.
- Was met seep en water na gebruik en toevallige velkontak.
- Moet nie eet, drink of rook tydens toediening, vermenging of voordat hande en gesig gewas is en klere verwissel is nie.
- Dreineer die spuitapparaat volledig na afloop van toediening.
- Was die spuitapparaat en deurspoel die pype, balk en spuitkoppe met skoon water. Verwyder alle sigbare neerslae van die produk. Verwyder en maak die spuitkoppe, siwwe en filters afsonderlik skoon. Deurspoel die volledige stelsel daarna weer met skoon water.
- Moet nie spuitapparaat naby 'n boorgat, fontein of ander waterbronne skoonmaak nie.
- Houers en verpakings moet heeltemal leeggemaak word voordat dit vernietig word.
- Skud die houer deeglik in die mengbak of spuittenk uit voordat leë houer vernietig word.
- Moet nooit die leë houer vir enige doel hergebruik nie.
- Moet nie voedsel, voer, drinkwater en eetgerei besoedel nie.
- Moet nie gewasse, weiding, riviere en damme met waswater besoedel nie.

## **RELEVANTE STOWWE:**

<b>KOMPONENT</b>	<b>CAS No.</b>	<b>Konsentraat</b>
Simoksanil	57966-95-7	25,0%
Famoksadoon	131807-57-3	25,0%
Natriumlignosulfonaat, gesulfometileerd	68512-34-5	$\geq 20,0 - < 25,0$ %
Aromatiese koolwaterstowwe, C10-13, reaksieprodukte met vertakte noneen, gesulfoneerde, natriumsoute	1258274-08-6	$\geq 3,0 - < 10,0$ %
Fumaarsuur	110-17-8	$\geq 1,0 - < 3,0$ %
Lignien, alkali, reaksieprodukte met dinatriumsulfiet en formaldehyd	105859-97-0	$\geq 1,0 - < 3,0$ %
Natriumchloried	7647-14-5	$\geq 1,0 - < 3,0$ %

## **NOODHULPBEHANDELING:**

### **Inaseming**

Beweeg na vars lug. Raadpleeg 'n geneesheer na aansienlike blootstelling. Kunsmatige asemhaling en/of suurstof mag nodig wees.

### **Velkontak**

Trek onmiddellik besmette klere en skoene uit. Was dadelik vel af met seep en genoegsame water. In die geval van vel irritasie of allergiese reaksies, raadpleeg 'n geneesheer. Was gekontameneerde klere voor hergebruik.

### **Oogkontak**

As dit maklik is om te doen, verwyder kontaklens, indien gedra word. Hou oog oop en spoel stadig en saggies uit met water vir 15-20 minute. Indien oogirritasie voortduur, raadpleeg 'n spesialis.

### **Inname**

Kry mediese hulp. MOENIE braking induseer nie, tensy 'n geneesheer of gifbeheersentrum beveel om dit te doen. Indien slagoffer by sy bewussyn is: Spoel sy mond uit met water.

## **WEERSTANDSWAARSKUWING**

**TANOS®** is 'n groepkode 27 / 11 swamdoder. Enige populasie van 'n spesifieke swam, mag individue insluit wat 'n natuurlike weerstand teen **TANOS®**, of enige ander groepkode 11 swamdoder het. Indien hierdie swamdoders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die swampopulasie oorheers. Hierdie weerstandbiedende swamme sal waarskynlik nie deur **TANOS®** of enige ander groepkode 11 swamdoder beheer word nie.

**TANOS®** is 'n mengsel van simoksanil (groepkode 27) en famoksadoon (groepkode 11) swamdoders, wat verskillende reaksiemeganismes het. **TANOS®** kan afgewissel word met ander swamdoders in groepkode X mits daar nie meer as 6 simoksanil bevattende bespuitings per gewas per seisoen toedien nie. Beide simoksanil en famoksadoon is aktief teen laatroesrasse wat weerstandbiedendheid teen fenielamied swamdoders vertoon.

Om weerstand teen swamdoders te vertraag:

- Vermyn die eksklusiewe herhaaldelike gebruik van swamdoders met dieselfde groepkode. Wissel af met, of gebruik tenkmengsels van produkte in verskillende swamdoder groepkodes.
- Raadpleeg toepaslike individuele produketikette wanneer daar afgewissel word, of tenkmengsels gemaak word, met produkte in swamdodergroepkodes X of Y.
- Integreer ander beheermaatreels (chemies, verbouing, biologies) in swamdoder programme.

Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk.

**VERENIGBAARHEID**

**TANOS®** is verenigbaar met Steward® (Reg Nr. L 6322 Wet Nr. 36 van 1947), Curzate Pro® (Reg Nr. L 5698 Wet Nr. 36 van 1947), Trimangol (Reg Nr. L 5985 Wet Nr. 36 van 1947), chlorotanoniil SC, koperoksichloried en mancozeb en die meeste produkte met neutrale of suur werking, indien toegedien volgens die vervaardigers se aanbevelings. Moet nie in tenkmengsels saam met produkte met alkaliese werking gebruik nie. Tenkmengsels met onbekende fisiese verenigbaarheid en gewasveiligheid moet eers op 'n klein skaal beproef word. Kontak die vervaardiger in geval van onsekerheid.

**ALGEMEEN**

- **TANOS®** bestaan uit twee onverwante, hoogs aktiewe bestanddele wat oor unieke reaksiemeganismes beskik naamlik: simoksaniil, 'n lokaal sistemiese swamdoder met voorkomende en kuratiewe werking en famoksadoon, 'n voorkomende, residuele swamdoder, wat aktief is teen spoorvorming en -ontkieming.
- Die beste resultate met **TANOS®** sal verkry word indien dit voorkomend toegedien word of tydens die vroeë stadium van siekte-ontwikkeling, voordat siektesimptome op die plant verskyn. Dien genoeg spuitmengsel per hektaar toe sodat deeglike benatting van die teikengewas plaasvind.
- **TANOS®** moet nie toegedien word op gewasse wat onder stremming verkeer nie ; stremming kan veroorsaak word deur droogte, versuip-toestande, lae temperature, insekskade, voedingselement- of kalktekorte of ander faktore wat gewasontwikkeling belemmer.
- Simoksaniil word vinnig deur plantweefsel opgeneem, terwyl die famoksadoon op die oppervlak waslae agterbly. **TANOS®** is bestand teen afwassing deur reën drie ure na toediening. Indien reën binne drie ure na toediening voorkom kan die werking van die produk beïnvloed word en moet die bespuiting herhaal word.

**MENGINSTRUKSIES EN SKOONMAAK VAN SPUITAPPARAAT**

- Maak seker dat die spuitapparaat heeltemaal skoon is alvorens **TANOS®** gebruik word.
- Die verlangde hoeveelheid **TANOS®** kan akkuraat afgeweeg, of volumetries afgemeet word. 'n Standaard volumetries gekalibreerde maatbeker of maatsillinder, gevul met **TANOS®** tot op die 200 ml merk is ongeveer gelyk aan 100 g **TANOS®**. Gooi **TANOS®** in maatbeker of maatsillinder en skud een of twee keer liggies om volume produk af te lees. Indien **TANOS®** m.b.v. volumetriese metode afgemeet word kan 'n afwyking van so groot as 10 % voorkom.
- Maak die spuittenk halfvol met water en aktiveer die roerder. Voeg dan die verlangde hoeveelheid **TANOS®** daarby na aanvanklike vermenging daarvan in 'n klein hoeveelheid water. Verseker voortdurende roering terwyl die tenk tot verlangde volume met water gevul word en tydens toediening.

## **LUGTOEDIENING**

**TANOS®** kan as deel van 'n weeklikse voorkomende spuitprogram uit die lug toegedien word mits die spuitmengsel eweredig oor die teikengebied versprei word. Beperk die verlies van spuitmateriaal tot 'n minimum gedurende toediening. Om dit te doen, moet die volgende vereistes nagekom word:

- Gebruik altyd die nouste moontlike spuitwydte van 'n korrek gekalibreerde vliegtuig.
- Gebruik ten minste 40 l water per ha in aartappels.
- Gebruik korrekte spuitkoppe wat druppelgroottes sal lewer met 'n VMD van 280 mikron en 'n minimum van 40-50 druppels/cm<sup>2</sup> moet op die teikengebied herwin word.
- Handhaaf 'n vlieghoogte van 3 m bokant die teikengebied by windsnelhede van 0-8 km/u en 2 m by windsnelhede van 8-15 km/u. Staak bespuiting sodra die windsnelheid 15 km/u oorskry.
- Moet nie spuit as die verskil tussen die nat- en droëbollesing, soos bepaal met 'n swaaihigrometer, meer as 8°C is nie.
- Moet nie spuit onder temperatuurinversie toestande nie.
- Moet nie gedurende die hitte van die dag toedien nie.
- Moet nie plante spuit wat oormatig natgedou of -gereën is nie.
- Verseker dat lande akkuraat gemerk is.
- Verkry versekering van die lugbespuitingsoperateur dat aan bogenoemde vereistes voldoen sal word.

GEWAS EN SIEKTE	HOEVEELHEID / ha	BESONDERHEDE VAN SPUITPROGRAM
<p><b>TAMATIES</b> Laatroes (<i>Phytophthora infestans</i>)</p> <p><b>EN</b> Vroeë roes (<i>Alternaria solani</i>)</p>	<p>500 g <b>TANOS®</b> <b>PLUS</b> 2 kg mankoseb OF 1,5 l chlorothalonil</p> <p>OF</p> <p>2,5 l Trimangol OF 2,5 kg koperoksichloried <b>PLUS</b> 500 ml/ha BP Crop Oil (Reg. Nr L6802 Wet Nr. 36 van 1947)</p> <p>OF</p> <p>50 ml/100 l Agral 90 (Reg. Nr. L5279 Wet Nr. 36 van 1947)</p>	<p>Volg ten all tye 'n voorkomende laat- en vroeë roes program.</p> <p>Gebruik <b>TANOS®</b> op enige stadium van plantontwikkeling sodra omgewingstoestande gunstig raak vir laatroesinfeksie (koel, bewolkte weer met gepaardgaande reën of besproeiing). <b>Sien BELANGRIK onder aan tabel.</b></p> <p>Dien toe as 'n volle dekbespuiting en afhangende van plantgrootte in 500–1500 l water/ha. Dien <b>TANOS®</b> elke 7–10 dae as deel van 'n program toe. Gebruik die korter spuitinterval wanneer toestande baie gunstig is vir Laat- of Vroeëroes ontwikkeling. Twee tot drie rug-aan-rug bespuitings met <b>TANOS®</b> word aanbeveel as 'n deel van 'n laatroesbeheer spuitprogram. Weeklikse afwisseling van die <b>TANOS®</b> tenkmengsel met die maksimum geregistreerde dosis kontakswamdoder (mankoseb, chlorothalonil, Trimangol® of koperoksichloried) kan onder matige siektedruk as deel van in 'n vroeë roesbeheer spuitprogram gebruik word. Moet nie meer as 5 <b>TANOS®</b> bespuitings per seisoen toedien, of meer as 3 <b>TANOS®</b> bespuitings rug-aan-rug toedien nie. Wissel af met ander alternatiewe geregistreerde swamdoders gedurende in die seisoen. Die toediening van <b>TANOS®</b> plus Koperoksichloried tenkmengsel lei tot verbeterde beheer van bakteriese stip veroorsaak deur <i>Xanthomonas campestris</i>.</p> <p><b>Die byvoeging van BP Crop Oil @ 500 ml/ha of Agral 90 @ 50 ml/100 l spuitmengsel word onder alle toestande in tenkmengsel met TANOS® aanbeveel.</b></p>

GEWAS EN SIEKTE	HOEVEELHEID / ha	BESONDERHEDE VAN SPUITPROGRAM
<p><b>AARTAPPELS</b> Laatroes (<i>Phytophthora infestans</i>)</p> <p><b>EN</b></p> <p>Vroeë roes (<i>Alternaria solani</i>)</p>	<p><b>GROND-TOEDIENING:</b> 500 g <b>TANOS</b><sup>®</sup> <b>PLUS</b> 2 kg mankoseb OF 1,5 l chlorothalonil SC OF 2,5 l Trimangol</p> <p><b>PLUS</b></p> <p>500 ml BP Crop Oil (Reg. Nr. L6802 Wet Nr. 36 van 1947) OF 50 ml/100 l Agral 90 (Reg. Nr. L5279 Wet Nr. 36 van 1947)</p> <p><b>LUGBESPUITING:</b> 600 g <b>TANOS</b><sup>®</sup> <b>PLUS</b> 2 kg mankoseb OF 1,5 l chlorothalonil  OF 2,5 l Trimango <b>PLUS</b> 500 ml BP Crop Oil/ha</p>	<p>Volg ten alle tye 'n voorkomende laat- en vroeë roes program. Gebruik <b>TANOS</b><sup>®</sup> op enige stadium van plantontwikkeling sodra omgewingstoestande gunstig raak vir laatroesinfeksie (koel, bewolkte weer met gepaardgaande reën of besproeiing). <b>Sien BELANGRIK onder aan tabel.</b></p> <p>Dien toe as 'n volle dekbespuiting en afhange van plantgrootte in 500–1500 l water/ha. Dien <b>TANOS</b><sup>®</sup> elke 7–10 dae as deel van 'n program toe. Gebruik die korter spuitinterval wanneer toestande baie gunstig is vir Laat of Vroeë roes ontwikkeling. Twee tot drie rug-aan-rug bespuitings met <b>TANOS</b><sup>®</sup> word aanbeveel as 'n deel van 'n laatroes beheer spuitprogram. Weeklikse afwisseling van <b>TANOS</b><sup>®</sup>-tenkmengsel met maksimum geregistreerde dosis kontakswamdoder (mankoseb, chlorothalonil, of Trimango<sup>®</sup>) kan onder matige siektedruk as deel van in 'n vroeëroesbeheer spuitprogram gebruik word.</p> <p><b><u>Dien toe soos hierbo wanneer trekkerbespuitings nie moontlik is nie en kom die volgende bykomende voorwaardes na:</u></b></p> <p>Lugbespuiting met <b>TANOS</b><sup>®</sup> teen laat- en vroeë roes <b>word slegs aanbeveel</b> wanneer gebruik word in 'n <b>weeklikse voorkomende spuitprogram voordat infeksie plaasvind</b>. Toedienings moet reeds vroeg na opkoms van die gewas begin. Minimum spuitvolume vir lugbespuiting met <b>TANOS</b><sup>®</sup>-tenkmengsel is 40 l/ha. <b>Swakker bedekking van gewas word met lugbespuiting verkry, wat kan aanleiding gee tot verlaagde siektebeheer (laat- en vroeëroes) in vergelyking met trekkerbespuitings.</b></p>

GEWAS EN SIEKTE	HOEVEELHEID / ha	BESONDERHEDE VAN SPUITPROGRAM
AARTAPPELS (verv.)		<p><b>Algemeen:</b></p> <p>Moet nie meer as 5 <b>TANOS®</b> bespuitings per seisoen toedien, of meer as 3 <b>TANOS®</b> bespuitings rug-aan-rug toedien, nie. Wissel af met ander alternatiewe geregistreerde swamdoders gedurende die seisoen. <b>Die byvoeging van BP Crop Oil @ 500 ml/ha of Agral® 90 @ 50 ml/100 l spuitmengsel word onder alle toestande in tenkmengsel met TANOS® aanbeveel.</b></p>
<p><b>BELANGRIK:</b></p> <p><b>TANOS®</b> beskik oor 'n kuratiewe werking van 2 dae teen laatroes. Dit beteken dat <b>TANOS®</b> die swam binne die plant kan beheer tot twee dae nadat infeksie plaasgevind het, <b>MAAR</b> voordat laatroes simptome sigbaar word. Laatroes blaarsimptome ontwikkel onder gunstige toestande binne 2-3 dae na infeksie. Aangesien laatroesletsels op die stamme eers na 10-14 dae sigbaar word, sal kuratiewe werking teen stam laatroes nie onder alle toestande verkry word nie. <b>Moet nie TANOS® gebruik om laatroes uitwissend, m.a.w. wanneer daar reeds simptome, veral stamsimptome in die blaredak sigbaar is nie, te beheer nie.</b></p>		

TANOS® en CURZATE® PRO is geregistreerde handelsmerke van Corteva Agriscience™ en geaffilieerde maatskappye.

Trimangol® (Reg Nr. L5985 Wet Nr. 36 van 1947) is 'n geregistreerde produk van Saadchem-Uniek Pty Ltd

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