

## WARNINGS

- **Withholding periods:** Allow for the minimum number of days, as indicated below, to elapse after the final application before harvest or feeding:

Grazing or feeding of crops planted with treated seed

**56 days**

- Handle with extreme care.
- Store under lock and key in a cool place away from food and feedstuffs
- Poisonous if swallowed, inhaled or absorbed through the skin.
- Protect against light. Store in a dark place.
- **Treated seeds may be poisonous to birds. Treated seed should therefore be properly planted and totally covered with soil. No seed should be left uncovered where it can be eaten by birds.**
- Use **THOXAGUARD 600 FS** only for the treatment of certified, high quality seed.
- Do not use **THOXAGUARD 600 FS** on sweetcorn or popcorn seed.
- Do not use **THOXAGUARD 600 FS** on seeds of inbred parent plants of hybrids, experimental hybrids or cultivars or newly released hybrids or cultivars. Consult with the manufacturer or seed supplier.
- Calibrate the planter before planting with treated seed, in order to ensure that the required plant population is obtained. Calibration must then be confirmed at regular intervals thereafter.
- Efficacy can be adversely affected by planting depth.
- Seedling emergence can be adversely affected should planting depth exceed 50mm.
- Only treat seed that is to be used for planting purposes. **Never use on seed intended for human consumption or for animal feed.**
- Do not use treated seed carried over from the previous season.
- Keep out of reach of children, uninformed persons and animals.

**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 weeds against the remedy concerned, as well as 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 humans, animals 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 event of any uncertainty.**

## PRECAUTIONS

- Wear protective clothing (face shield and rubber gloves) when handling the concentrate and preparing the mixture.
- Wash protective clothing daily.
- Wash with soap and cold water immediately after use and accidental skin contact.
- Do not eat, drink or smoke whilst mixing or applying, or before washing hands and face and change of clothing.
- If poisoning is suspected, immediately consult a physician.
- After treatment of seed, clean applicator and all utensils. Dispose rinse water where it will not contaminate crops, grazing or water sources.
- **TRIPLE RINSE:** Invert the empty container over the mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the empty container three times with a volume of water equal to about 25 % of that of the container. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal.
- Destroy and dispose of the container in the prescribed manner.
- Destroy the rinsed empty container by perforating and flattening it and never re-use an empty container for any other purpose.
- Prevent contamination of food, eating utensils and drinking water.
- Treated seed must be handled carefully. Label the bags which contain treated seed clearly "**HARMFUL—treated with insecticide.**" Never re-use the bags for any other purpose.



# THOXAGUARD 600 FS

Reg No/ Nr L10687 Act No/ Wet Nr 36/1947

A systemic insecticide seed treatment for the control of pests as indicated.

'n Sistemiese insekdoder saadbehandeling vir die beheer van plae soos aangedui

<b>IRAC INSECTICIDE GROUP CODE:</b>	<b>4A</b>	<b>IRAC INSEKDODER GROEPKODEKODE:</b>
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## ACTIVE INGREDIENT/AKTIEWE BESTANDEEL:

thiamethoxam (neonicotinoid).....600 g / ℓ.....tiametoksam (neonikotenoïed)

Manufacture Date:  
Vervaardigingsdatum:

Batch No.:  
Lotnommer:

CONTENTS/ INHOUD

**SEE ENCLOSED LEAFLET FOR FULL PARTICULARS  
SIEN INGESLOTE VOUBILJET VIR VOLLE BESONDERHEDE**

REGISTRATION HOLDER/REGISTRASIEHOUER:

**Farm-Ag International (Pty) Ltd.**

Reg. No. / Nr. 2005/011761/07

P.O. Box 1523, Durban 4000, South Africa • Tel: (031) 003 3486

UN No.: 3082

				<b>CAUTION</b>		
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### RESISTANCE WARNING

For resistance management **THOXAGUARD 600 FS** a group code 4A insecticide. Any insect population may contain individuals naturally resistant to other group code 4A insecticides.

The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **THOXAGUARD 600 FS** or any other group code 4A insecticide.

#### In order to delay insecticide resistance:

- Avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate with products from different insecticide group codes.
- Integrate other control methods (chemical, cultural, biological) into insect control programs.

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

### USE RESTRICTIONS

**THOXAGUARD 600 FS** is a residual, systemic insecticide, formulated to be used as seed dressing, and which is absorbed by the germinating seed and consequently the seedlings.

Acceptable efficacy of the product to control target pests therefore depends on the following:

- Sufficient soil moisture, to ensure germination and active plant growth and consequently the effective uptake of the active ingredient.
- Germination may be delayed by environmental conditions that are not conducive to optimum germination and plant growth.
- Flood irrigation: Do not use flood irrigation until all seeds have germinated and seedlings have emerged and the crop is firmly established. This would normally take around 2 weeks after planting.
- Damage to treated crop seedlings may still occur under high insect population pressure. Mild infestations of Russian wheat aphid can still occur despite treatment with **THOXAGUARD 600 FS**.

### EXPECTED PERIOD OF CONTROL

Pest	Expected period of control after planting
<b>Maize</b> <u>Soil insects:</u> Black maize beetle (adults); False wireworm; Ground weevil (adults); Spotted maize beetle(larvae)	<b>42 days</b>
<u>Foliar feeding insects:</u> Maize leaf hopper*	
<b>Wheat</b> Russian wheat aphid	

### Residual efficacy of THOXAGUARD 600 FS:

#### Important notes:

- Even when this product is used, some damage and streak virus symptoms may still occur to maize seedlings.
- Planting depth of treated seed must be at a depth of 30 to 50 mm.
- The period of control may be prolonged or shortened depending on various environmental factors such as temperature, soil moisture, rainfall patterns etc.

**DIRECTIONS FOR USE:** Use only as directed.

**Compatibility:**

- **THOXAGUARD 600 FS** can be used on seeds previously treated with a fungicide (e.g. **Captab**).
- In such cases, treat the seed with the fungicide first, and then with **THOXAGUARD 600 FS**.
- Refer to the “**DIRECTIONS FOR USE**” and “**USE RESTRICTIONS**” as listed on the fungicide label.
- Do not use **THOXAGUARD 600 FS** in combination with **Teprosyn Mo/P** as this may adversely affect proper coverage of seed with **THOXAGUARD 600 FS**.

**Mixing instructions:**

- Thoroughly shake the container of **THOXAGUARD 600 FS** and then add the required volume to a small volume of water and mix to form a smooth cream before adding the remaining balance of the water. Stir and agitate thoroughly before adding to the seed.
- Large quantities of seed are conveniently treated in automatic seed-dressing machines and **THOXAGUARD 600 FS** must be used as a slurry seed-dressing. The machines should be correctly calibrated to deliver the required treatment rates, and regularly checked, to ensure that the correct quantity of **THOXAGUARD 600 FS** is being used throughout the application.
- Treat enough seed for immediate use.
- Do not allow treated seed to stand over for prolonged period of time.
- Allow seed to dry before bagging.

**APPLICATION RATES****IMPORTANT**

Refer to “**USE RESTRICTIONS**” above.

**MAIZE**

Pest	Dosage
Spotted maize beetle ( <i>Astylyus atramaculatus</i> ) Larvae Black maize beetle ( <i>Heteronychus arator</i> ), False wireworms ( <i>Tenebrionidae spp.</i> ), Groundweevils ( <i>Prostophus spp.</i> )	0.5 mg active ingredient per kernel. Use 2 parts water to one part <b>THOXAGUARD 600 FS</b> <b>See determination of dose rates below</b>
Maize leafhopper ( <i>Cicadulina mbila</i> ) Vector of streak disease	0.85 mg active ingredient per kernel. The volume of water to be added must be such that a final mixture volume of 1.5 litres are used per 100 kg seed. <b>See determination of dose rates below</b>
<b>DETERMINATION OF DOSAGE RATES FOR TREATMENT OF MAIZE SEED:</b>	
<b>Instructions for maize seed packed as number of kernels per bag:</b>	
<b>Pack size</b>	<b>Dosage:</b>
<b>in number of kernels/bag</b>	<b>mℓ/ THOXAGUARD 600 FS /bag</b>
60000	50
70000	58
80000	67
90000	75
<b>Instructions for maize seed packed per weight with the Thousand Grain Weight (TGW) known for each batch:</b>	
The following 2 formulas must be applied to determine the amount of <b>THOXAGUARD 600 FS</b> to treat 100kg seed.	
<ul style="list-style-type: none"> <li>• <math>(1000 \div \text{TGW}) \times 100000 = n \text{ kernels}/100\text{kg}</math></li> <li>• <math>\frac{(n \times 0.5)}{1000} \div 0.6 = \text{mℓ/product}/100\text{kg seed}</math></li> </ul>	

**Instructions for maize seed packed per weight with the TGW unknown for each batch:**

Maize leaf hopper	595 mℓ <b>THOXAGUARD 600 FS</b> plus 905 mℓ water /100kg seed
Other maize soil insects	292 mℓ <b>THOXAGUARD 600 FS</b> plus 1200 mℓ water /100kg seed

**CANOLA**

<b>Pest</b>	<b>Dosage</b>
Flea beetles ( <i>Phyllotreta cruciferae</i> ),  Wireworms ( <i>Conoderus rudis</i> ), Green peach aphid ( <i>Myzus persicae</i> ) and Cabbage aphid ( <i>Brevicoryne brassicae</i> )	670 mℓ /100 kg seed  <b>THOXAGUARD 600 FS</b> should be used with compatible and registered seed treatment fungicides proven to control seed and seedling diseases. The fungicides must show safety on treated seed, alone and in combination with <b>THOXAGUARD 600 FS</b> . Refer to “ <b>USE RESTRICTIONS</b> ”.

**WHEAT**

<b>Pest</b>	<b>Dosage</b>
Russian wheat aphid ( <i>Diuraphis noxia</i> )	200 mℓ / 1300 mℓ water / 100 kg seed. Refer to “ <b>USE RESTRICTIONS</b> ”.



## WAARSKUWINGS

<b>Onthoudings Periode:</b> Laat die minimum aantal dae toe vanaf die finale toediening voor oes of beweiding.	
Beweiding of voer van gewasse waarvan die saad behandel is.	<b>56 dae</b>

- Hanteer uiters versigtig.
- Bêre agter slot en grende in 'n koel en droë plek weg van voedsel en over.
- Giftig indien ingesluk, ingeasem of in geval van velkontak.
- Beskerm teen lig. Bêre in donker plek
- **Behandelde saad mag giftig wees vir voels. Behandelde saad moet dus korek geplant word en total met grond bedek word. Geen saad moet nie bedek wees nie waar dit deur voels geëet kan word nie.**
- Behandel slegs gesertifiseerde hoë gehalte saad met **THOXAGUARD 600 FS**.
- Moet nie **THOXAGUARD 600 FS** op suikermielies of springmielies gebruik nie.
- Moet nie **THOXAGUARD 600 FS** op ingeteelde ouerplante van basters of onbeproeftde, eksperimentele kultivars of nuutvrygestelde kultivars of basters gebruik nie. Gebruik alleenlik nadat daar met produk verskaffer of die saadverskaffer gekonsulteer is.
- Kalibreer die planter alvorens behandelde saad geplant word om te verseker die verlangde plant populasie verkry word. Gaan kort, kort die kalibrasie na.
- Doeltreffendheid kan nadelig deur plantdiepte beïnvloed word.
- Saailing opkoms mag nadelig beïnvloed word as die saad dieper as 50 mm geplant word.
- Behandel net genoeg saad benodig vir plant. **Moet nooit behandelde saad vir menslike gebruik of diere voer gebruik nie.**
- Moet nie behandelde saad van een seisoen na die volgende oordra nie.
- Hou buite die bereik van kinders, oningeligte persone en diere.

**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, verenigbaarheid met ander stowwe wat nie op die etiket aangedui word nie en die voorkoms van weerstand van die plaag teen die betrokke middel sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei en die omgewing of nadelige invloede op mens of dier of vir 'n gebrek aan prestasie van die betrokke middel as gevolg van 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. Raapleeg die verskaffer in die geval van enige onsekerheid.**

## VOORSORGMATREËLS

- Dra beskermende klere: (gesigskerm en handskoene) terwyl die konsentraat gehanteer word en terwyl vermenging plaasvind.
- Was beskermende klere daaglik.
- Was met seep en koue water onmiddellik na gebruik of indien die produk met die vel in aanraking kom.
- Moet nie eet, drink of rook tydens toediening of voordat die hande en gesig gewas en skoon klere aangetrek is nie.
- Indien vergiftiging vermoed word - hou dadelik op met werk en raadpleeg 'n geneesheer.
- Maak toedienings- en mengapparaat skoon na gebruik. Waswater moet nie gewasse, weivelde, riviere, damme, en boorgate kontamineer nie.
- **DRIE KEER SPOEL:** Keer die houer oor die mengtenk om en laat dreineer vir ten minste 30 sekondes nadat die vloeitot 'n drupel verminder det. Spoel leë houer drie keer uit met 'n volume water gelyk aan 25% van die houer en voeg die uitspoelwater by die inhoud van die mengbak voordat die houer vernietig word.
- Vernietig die houer op die voorgestelde manier.
- Vernietig leë houer deur gate daarin te maak. Moet nie leë houer vir 'n ander doel gebruik nie.
- Voorkom kontaminasie van voedsel, voer, drinkwater en eetgerei.

- Merk sakke met behandelde saad duidelik “**GEVAARLIK: behandel met insekdoder.**” Moet nooit die sake vir enigiets anders gebruik nie.

#### WEERSTAND WAARSKUWING.

**THOXAGUARD 600 FS** is 'n groepkode 4 insekdoder. Enige populasie van 'n spesifieke insek mag individue insluit wat 'n natuurlike weerstand teen **THOXAGUARD 600 FS** of enige ander groepkode 4 insekdoder. Indien hierdie insekdoders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die insekpopulasie oorheers. Hierdie weerstandbiedende insekte sal waarskynlik nie deur **THOXAGUARD 600 FS** of enige ander groepkode 4 insekdoder beheer word nie.

#### Om weerstand teen insekdoder te vertraag:

- Verminder die uitsluitlike herhaaldelike gebruik van insekdoders met dieselfde groepkode. Wissel af met insekmiddels van 'n ander groepkode.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in insekdoderprogramme.

**Vir meer spesifieke inligting oor weerstandbeheer, kontak die registrasie houers van die produk.**

#### GEBRUIKSBEPERKINGS

**THOXAGUARD 600 FS** is 'n sistemiese saadbehandelingsinsekdoder met 'n lang nawerking wat deur die kiemwortels opgeneem word en gevolglik deur die saailing.

Aanvaarbare doeltreffendheid van die produk om insekte te beheer berus op die volgende:

- Voldoende grondvog is nodig om ontkieming te bewerkstellig, akitiewe plant groei en gevolglik die opname van die aktiewe bestanddeel van die produk.
- Ontkieming kan vertraag word deur omgewings faktore wat nie voordelig is vir ontkieming en plant groei nie.
- Vloed besproeiing: Moet nie vloed besproeiing toepas voor alle sade ontkiem het en saailinge opgekom het en die gewas goed gevestig is. Normaalweg omtrent 2 weke na plant.
- Skade aan gevestigde gewas saailinge onder toestande van hoë insekpopulasiedruk kan ten spyte van die saadbehandeling nog voorkom. Ligte besmetting van Russiese koring luis mag nog voorkom ten spyte van behandeling met **THOXAGUARD 600 FS**.

#### VERWAGTE TYDPERK VAN BEHEER

Plaaig	Verwagte tydperk van beheer na plant
<b>Mielies</b> Grondinsekte: Swartmielie kewer (volwasenes); Valsdraadwurm; Volwasse doodhouretjie(volwasenes); Bontmieliekewerlarf ----- Blaarinsekte: Mieliebladspringer*	<b>42 dae</b>
<b>Koring</b> Russiese koringluis	

#### Nawerking van Thoxaguard 600 FS:

##### Belangrike notas:

- Slegs wanneer die produk gebruik is mag sommige beskadigde en streepsiekte simptome op saailinge voorkom.
- Behandelde saad moet 30 cm tot 50 cm diep geplant word.
- Die tydperk van nawerking mag verleng of verkort na gelang van omgewing toestande soos temperatuur, grondvog, reënval patrone ens.

#### GEBRUIKSAANWYSINGS

**Gebruik slegs soos aangedui**



**Verenigbaarheid:**

- **THOXAGUARD 600 FS** kan gebruik word op saad wat vooraf met 'n swamdoder behandel is. (Bv. **Captab**).
- In sulke gevalle moet die saad eers met die swamdoder en dan met **THOXAGUARD 600 FS** behandel word.
- Verwys na **GEBRUIKSAANWYSINGS** en **GEBRUIKSBEPERKINGS** op die swamdoder etiket
- Moenie **THOXAGUARD 600 FS** in kombinasie met **TeprosynMo/P** gebruik nie want dit kan die goeie bedekking van die saad met **THOXAGUARD 600 FS** benadeel.

**Menginstruksies:**

- Skud die **THOXAGUARD 600 FS** houër deeglik en dan voeg die benodigde hoeveelheid by 'n klein bietjie water by en meng tot 'n gladde room voor die wenslike hoeveelheid water bygevoeg word. Roer en meng deeglik met die aanbevole hoeveelheid water voordat dit by die saad gevoeg word.
- Groot hoeveelhede word gerieflik behandel in automatiese saadbehandelingsmasjiene en **THOXAGUARD 600 FS** moet as 'n slyk saadbehandeling gebruik word. Dit is belangrik dat enige grootmaat toedieningsapparaat korrek gekalibreer word en reëlmatig nagegaan word, om te verseker dat die verlangde behandeling hoeveelhede **THOXAGUARD 600 FS** altyd toegedien word.
- Behandel net genoeg saad vir onmiddellike gebruik.
- Moenie behandelde saad vir verlengde tydperk laat oorstaan nie.
- Laat saad toe om droog te word alvorens dit in sake geberg word.

**TOEDIENINGSHOEVEELHEDE****BELANGRIK**

Verwys na "Gebruiks beperkings" hierbo gelys.

**MIELIES**

<b>Plaag</b>	<b>Dosis</b>
Bontmieliekewer ( <i>Astylus atromaculatus</i> ) Larf Swartmieliekewer ( <i>Heteronychus arator</i> ) Valsdraadwurms ( <i>Somaticus</i> en <i>Gonocephalum spp.</i> ) Doodhouertjies ( <i>Protostrophus spp.</i> )	0.5 mg ai / saad pit Voeg water by in die verhouding van 2 dele water vir 1 deel <b>THOXAGUARD 600 FS</b> <b>Sien bepaaing van dosis hieronder</b>
Mieliebladspinger ( <i>Cicadulina mbila</i> ) Vektor van mieliestrepsiekte virus	0.85 mg ai / saad pit Voeg water by die <b>THOXAGUARD 600 FS</b> sodat die finale toedieningsvolume 1.5 ℓ / 100 kg saad is. <b>Sien bepaaing van dosis hieronder</b>

**BEREKENING VAN DOSIS VIR DIE BEHANDELING VAN MIELIE SAAD:****Aanbevelings vir mielie saad verpak volgens aantal pitte per sak:**

Verpakking grootte	Dosis:
Aantal pitte / sak	mℓ/ THOXAGUARD 600 FS /sak
60000	50
70000	58
80000	67
90000	75

**Instruksies vir saad wat in gewig per sak verpak is en die Duisend Pit Massa (DPM) vir die lot bekend is:**Gebruik die twee formules om die volume **THOXAGUARD 600 FS** te bereken wat nodig is om 100 kg saad te behandel.

- $(1000 \div \text{TGW}) \times 100000 = n$  pitte /100kg
- $(n \times 0,5) \div 0,6 = \text{ml product} / 100\text{kg saad}$   
1000

**Die volgende afdeling geld vir saad wat in gewig per sak verpak is en die Duisend Pit Massa (DPM) vir die lot onbekend is:**

Mieliebladspringer	595 mℓ <b>THOXAGUARD 600 FS</b> plus 905 mℓ water /100kg saad
Alle grond insekte plaë behalwe mieliebladspringer	292 mℓ <b>THOXAGUARD 600 FS</b> plus 1200 mℓ water /100kg saad

**CANOLA**

Plaaig	Dosis
Vlooieters ( <i>Phyllotretacruiferae</i> ),  Draadwurms ( <i>Conoderusrudis</i> ), Groen perske luis ( <i>Myzuspersicae</i> ) En Kool luis ( <i>Brevicormynebrassicae</i> )	670 mℓ / 100 kg saad  Dit word aanbeveel om <b>THOXAGUARD 600 FS</b> met verenigbare- en geregistreerde saadbehandelings -swamdoders te gebruik, wat aanbeveel word vir die beheer van saad- en Saailing siektes. Die swamdoders moet veilig vir behandelde saad alleen en in kombinasie met <b>THOXAGUARD 600 S</b> . Verwys na " <b>Gebruiks beperkings</b> "

**KORING**

Plaaig	Dosis
Russiese Koringluis ( <i>Diuraphisnoxia</i> )	200 mℓ/ 1300mℓ water /100 kg saad Verwys na " <b>GEBRUIKS BEPERKINGS</b> "





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