

**IMPORTANT NOTICE: THE FOLLOWING INFORMATION (INCLUDING WARNINGS, PRECAUTIONS, USE RESTRICTIONS AND DIRECTIONS FOR USE) MUST BE CAREFULLY READ AND CLEARLY UNDERSTOOD BEFORE USING THIS PRODUCT. IN THE EVENT OF ANY UNCERTAINTY CONSULT THE REGISTRATION HOLDER IMMEDIATELY.**

**WARNINGS**

**ALLOW THE FOLLOWING MINIMUM NUMBER OF DAYS, BETWEEN LAST APPLICATION AND HARVEST OR GRAZING**

Barley	70
Maize and sweet corn	30
Soya beans	39
Sugarcane	60
Wheat	60

- Handle with care.
- Harmful if swallowed.
- May cause skin sensitization.
- Toxic to fish.
- Keep out of reach of children, uninformed persons and animals.
- Store away from food and feed.
- Re-entry: Do not enter treated field within two days after application, unless wearing protective clothing.
- Do not graze treated crop fields or use as fodder.

**Aerial application:**

- Notify and warn all inhabitants, in the immediate area of the intended application and issue the necessary warnings.
- Do not spray over adjacent areas, or water, or permit spray to drift there.

*Although this remedy has been 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 against the remedy concerned, as well as by the method, time and accuracy of application. The registration holder furthermore, does not accept responsibility for damage to crops, vegetation, the environment, harm to man or animal, or for lack of performance of the remedy concerned, due 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**

- Wear protective equipment and a face shield when preparing the spray mixture.
- Wear a hat, face protection, overalls, and boots when applying the spray mixture. Wash contaminated clothing daily.
- Wash hands and face with soap after mixing or applying **CALCULUS 125 SE**.

- Do not eat, drink or smoke during mixing or application of **CALCULUS 125 SE** or before washing exposed body parts.
- Avoid contamination of human or animal food, feeds/utensils or drinking water.
- Spray drift should not be inhaled, nor should it be allowed to spread over any non-target area such as water bodies, grazing areas or other crops.
- Ensure that no residual product is left over in containers by rinsing thoroughly. Used empty containers should be punctured and disposed of in a correct and safe way.
- Prevent any contact with eyes through drift or splashing. In case of accidental contact wash with water for at least 15 minutes and contact a physician if eye or skin irritation persists.

**FIRST AID TREATMENT**

Remove patient from source of poisoning and keep him relaxed and rested.

**Eye contact:** Flush eyes with clean water for about 20 minutes, occasionally holding the eyelid(s) open. If irritation persists, consult an eye specialist.

**Skin contact:** Rinse contaminated body area with plenty of soap and cold water. Do not rub skin. Apply olive oil to affected areas for prompt relief. Get medical attention if irritation persists.

**Inhalation:** Move the patient to fresh air. If breathing difficulty or irritation occurs obtain medical attention.

**Ingestion:** Do not induce vomiting. If the patient is alert, have the mouth thoroughly rinsed with water and give 1 to 2 glasses of water to drink. Do not give anything by mouth to unconscious person. Obtain medical attention immediately.

**NOTE TO PHYSICIAN:**

There is no specific antidote available. Treat according to symptoms (decontamination, vital functions).

**RESISTANCE WARNING AND MANAGEMENT**

**CALCULUS 125 SE** contains FRAC Group Codes 3 & 11 fungicides. Any fungal population can contain individuals that are naturally resistant to **CALCULUS 125 SE** and other fungicides from Group Codes 3 & 11. Therefore, if these fungicides are used repeatedly and exclusively in spray programmes, it is possible that these resistant individuals can eventually dominate the fungal population. These resistant fungi may not be controlled by **CALCULUS 125 SE** or any other fungicides of Group Codes 3 & 11.

**To delay or retard fungicide resistance:**

- Avoid exclusive and repeated use of fungicides from the same Fungicide Group Codes. Alternate or tank-mix with products from different Fungicide Group Codes.
- In cases of tank mixing or alternation with products in other Fungicide Group Codes, refer to the applicable individual product labels.
- Apply the concepts of Integrated Pest Management whereby other control methods (chemical, cultural, biological), are integrated into the disease control programmes.



# CALCULUS® 125 SE

Reg. No.: L10314 Act /Wet No. 36 of / van 1947

A suspo-emulsion contact and translaminar fungicide for the preventative control of diseases on barley, maize, soybeans, sugarcane and wheat.

'n Suspo-emulsie kontak- en translaminêreswamddoder vir die voorkomende beheer van siektes op gars, koring, mielies, sojabone en suikerriet.

## FRAC FUNGICIDE GROUP CODES

11&3

## FRAC SWAMDODERGROEP KODES

### ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL:

Epoxiconazole (triazole) ..... 62,5 g/l  
Pyraclostrobin (methoxy-carbamates) ..... 62,5 g/l

Manufacture Date:  
Vervaardigingsdatum:

Batch No.:  
Lotnommer:

NET MASS/ INHOUD

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

### REGISTRATION HOLDER/REGISTRASIEHOUER:

Cedar Falls Properties 130 (Pty) Ltd.

Co Reg No 2006/031383/07

61 Marshall Drive, Old Mill Industrial Park, Mount Edgecombe, South Africa, 4300 • Tel: 031 003 3486

- Emergency Number: Griffon Poison Information Centre

UN No.: 2902



HARMFUL  
SKADELIK



### **Anti-resistance strategy:**

In order to maintain the efficacy of **CALCULUS 125 SE**, it is necessary to prevent the development of resistance of the diseases to fungicides from the DMI (triazole-) and QoI-fungicide groups (FRAC Group Codes 3 & 11). This can be aided by:

- Never reducing the dose rate to below what is recommended on the label.
- Never using other DMI (triazole-) or QoI-fungicides, or related fungicides, in the same programme with **CALCULUS®125 SE**.
- Not exceeding two applications of **CALCULUS 125 SE** per season.

### **CONTACT THE REGISTRATION HOLDER FOR MORE INFORMATION ON RESISTANCE MANAGEMENT.**

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

#### **General information:**

Pyraclostrobin, which is one of the active ingredients of **CALCULUS 125 SE**, and it has been shown to have certain effects on the physiology of various crops which can be of commercial benefit. In certain countries, pyraclostrobin is in fact registered and recommended as a plant health remedy, to increase yields.

#### **Compatibility:**

**CALCULUS 125 SE** is compatible with products containing glyphosate and alpha-cypermethrin. In the case of other herbicides, insecticides and acaricides, it is recommended that the compatibility of **CALCULUS 125 SE** should be tested on a small scale before being used on a large scale in spray mixtures.

It is not necessary to use any additional agricultural adjuvants as the **CALCULUS 125 SE** formulation already contains optimum amounts of surfactants. The only exception is when flowable (50%) high quality ammonium sulphate is tank mixed in regions where the water quality is known to be poor. In such instances the water must be ameliorated before adding **CALCULUS 125 SE**.

#### **Mixing instructions:**

Half fill the tank with clean water. Measure out the recommended quantity of **CALCULUS 125 SE** and pre-mix this with at least 10L water. Add this mixture to the water already in the spray tank whilst agitating continuously. Fill the spray tank with water and continue to agitate to ensure thorough mixing of the spray mixture before spraying commences. Maintain agitation throughout the whole spraying operation. The spray mixture must be used on the day of preparation and must not be left in the spray tank for any length of time, e.g. overnight.

#### **Aerial application:**

- Aerial application of **CALCULUS 125 SE** may only be done by a registered aerial application operator, using a correctly calibrated, registered aircraft, according to the Instructions of SANS Code 10118 (Aerial Application of Agricultural Pesticides). Ensure that the spray mixture is distributed evenly, over the target area and that the loss of spray material during application is restricted to a minimum.

It is therefore essential that the following criteria be met:

- **Volume:** A spray volume of 30 - 40L per hectare is recommended. The registration holder cannot guarantee the efficacy of the treatment nor be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
- **Droplet coverage:** 50 - 70 droplets per cm<sup>2</sup> must be recovered at the target area.
- **Droplet size:** A droplet spectrum with a VMD of 250 micron is recommended. Limit the production of fine droplets of less than 150 micron to a minimum as these have a high drift and evaporation potential.
- **Flying height:** Maintain the height of the spray boom at 3 - 4 metres above the target. Do not spray when aircraft dives, or is in a climb, or when banking.
- Use suitable atomising equipment, that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum, with the lowest possible Relative Span.
- Position all the atomisers within the inner 60 - 75 % of the wingspan, to prevent droplets from entering the wingtip vortices.
- The difference in temperature between the wet and dry bulb thermometer, of a whirling hygrometer, should not exceed 8 °C.
- Stop spraying, if the wind speed exceeds 15 km / h.
- Stop spraying under turbulent, unstable and dry conditions, during the heat of the day.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and / or high humidity conditions (relative humidity 80 % and above), may lead to the following:
- Reduced efficacy, due to suspension and evaporation of small droplets in the air (inadequate coverage).
- Damage to other sensitive crops and / or non-target areas through drifting of the suspended spray cloud, away from the target field.
- Ensure that the aerial spray operator knows exactly which field to spray.
- Obtain an assurance from the aerial spray operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

All spray applications must be made with suitable equipment that is in good working order and correctly calibrated, to give the desired coverage for that particular method of application.

### **For all crops and diseases, do not exceed two applications of **CALCULUS 125 SE** per season.**

CROP	DISEASE	Dosage l / ha	DIRECTIONS FOR APPLICATION
BARLEY	Leaf spot ( <i>Rhynchosporium secalis</i> )	1,0	Preventive application, or at very first signs of disease. If there is high disease pressure, apply a second application, 3 – 4 weeks later  <b>Ground application:</b> Apply in 200 – 400 l water / ha. <b>Aerial application:</b> Apply in 30 - 40 l water / ha.
	Leaf rust ( <i>Puccinia hordei</i> )	1,0	Apply, as soon as infection is noticed and repeat if necessary, 3 - 4 weeks later.  <b>Ground application:</b> Apply in 200 - 400 l water / ha. <b>Aerial application:</b> Apply in 30 – 40 l water / ha.
	Net blotch ( <i>Pyrenophora teres</i> )	1,0	Preventive application, or at very first signs of disease. Repeat the application, 3 - 4 weeks later.  <b>Ground application:</b> Apply in 200 - 400 l water / ha. <b>Aerial application:</b> Apply in 30 – 40 l water / ha.
	Powdery mildew ( <i>Erysiphe graminis</i> )	1,0	Apply, as soon as infection is noticed and repeat if necessary, 3 - 4 weeks later.  <b>Ground application:</b> Apply in 200 - 400 l water / ha. <b>Aerial application:</b> Apply in 30 – 40 l water / ha.
MAIZE and SWEET CORN	Grey leaf spot ( <i>Cercospora zeina</i> )	1,6l	<b>CALCULUS®</b> is recommended in an integrated disease management programme. Consistent and reliable disease control and prevention in this program is dependent on preventative fungicide applications.  The first application of <b>CALCULUS 125 SE</b> should be applied at growth stage 31, which is when the first node is detectable above the soil surface (also described as the 5 – 6 leaf stage). A second application is recommended at growth stage 51 or when the tassel is detectable. If extended disease control is required, a suitably registered fungicide should be applied 3 - 4 weeks later (consult the supplier for details).
	Northern leaf blight ( <i>Exserohilum turcicum</i> )		In certain areas or in conditions, where low disease presence is expected, apply <b>CALCULUS 125 SE</b> between growth stage 31, (also described as the 5 - 6 leaf stage) and growth stage 35 (8 leaf stage). Growth stage 35 is regarded as the last possible time to spray with a conventional tractor. If extended disease control is required, revert back to the above mentioned 'follow - up' application of <b>CALCULUS 125 SE</b>
	Rust ( <i>Puccinia sorghi</i> )		Disease pressure is increased, by the following factors: <ul style="list-style-type: none"> <li>• Persistent climatic conditions that are favourable for disease development.</li> <li>• Crop planting density.</li> <li>• Source of the fungal inoculum such as under minimum tillage practices.</li> <li>• The susceptibility of the crop variety or hybrid to the diseases.</li> <li>• Any delays in applying the fungicide programme.</li> </ul>
		550 mL/ 100 l water	<b>Ground application:</b> Apply as a full cover spray in 150 - 300 l water / ha. Use well maintained, quality equipment and apply a fine and evenly distributed spray pattern onto the plant surface.

CROP	DISEASE	Dosage ℥ / ha	DIRECTIONS FOR APPLICATION
SOYA BEANS	Soya bean rust ( <i>Phakopsora pachyrhizi</i> )	1,0ℓ	Preventive application before the first signs of disease are noticed (normally at onset of flowering) and repeat 21 – 28 days later. The shorter interval of 21 days is for when high disease pressure is expected, due to weather conditions that favour disease development. This programme will also reduce the incidence of Sclerotinia ( <i>Sclerotinia sclerotiorum</i> ). <b>Ground application:</b> Apply as a full cover spray in 150 - 300 ℥ water / ha. Use quality spray equipment and deliver a fine and evenly distributed spray pattern onto the plant surfaces. <b>Aerial application:</b> As for recommendations above, in 40 ℥ water / ha.
SUGARCANE	Brown rust ( <i>Puccinia melanocephala</i> )  Tawny rust ( <i>Puccinia spp.</i> ) Refer to Note below	1,6ℓ	<b>Apply two applications.</b> The first application is, preventative at the 4 – 6 leaf stage of the cane or at the first signs of brown rust infection. The second application is to be done one month after the first. A preventive application for the control of Tawny rust, is strongly advised. This disease develops rapidly and therefore curative application may not always provide the desired results. <b>Ground application:</b> Apply 'full cover' in 200ℓ water / ha. <b>Aerial application:</b> Apply in 30 - 40 ℥ water / ha
WHEAT	Speckled leaf blotch and Glume blotch ( <i>Septoria spp.</i> ) Brown rust / Leaf rust ( <i>Puccinia triticina</i> ) Stem rust ( <i>Puccinia graminis</i> ) Powdery mildew	1,0ℓ	Start spraying at the first sign of infection but not later than 'flag leaf emergence'. A second application can be made 3 – 5 weeks later if high disease pressure occurs. <b>Ground application:</b> Apply in 200–400ℓ water/ha. <b>Aerial application:</b> Apply in 30 - 40 ℥ water / ha

**Note:**

- Tawny rust on sugarcane (formerly referred to as African rust), can occur in all the production areas of South Africa. A definition and full description of this species is currently in progress. This rust has unique symptoms and can be easily distinguished from Brown rust, by the following visual characteristics:
  - The rust pustules on the leaf surface occur on both the top and the bottom of the leaves.
  - The rust pustules on both leaf surfaces are distinctly orange in colour when they burst open.
- Severe Tawny rust infection has been recorded on varieties N25 and N46 and the disease has also been observed on N12, N31, N41, N43, N46, N49, N53.



**BELANGRIKE KENNISGEWING: DIE VOLGENDE INLIGTING (INSLUITEND WAARSUKWINGS, VOORSORGMAATREËLS, GEBRUIKSBEPERKINGS EN GEBRUIKSAANWYSINGS ) MOET NOUKEURIG GELEES EN DUIDELIK VERSTAAN WORD VORU GEBRUIK VAN HIERDIE PRODUK. IN DIE GEVAL VAN ENIGE ONDUIDELIKHEID KONTAK DIE REGISTRASIE HOUER ONMIDDELLIK.**

### WAARSUKWINGS

LAAT DIE VOLGENDE MINIMUM AANTAL DAE TOE TUSSEN LAASTE TOEIDENING EN OES OF BEWEIDING.

Gars	70
Mielies en suikermielies	30
Sojabone	39
Suikerrit	60
Koring	60

- Hanteer versigtig.
- Skadelik indien ingesluk.
- Mag vel sensitiviteit veroorsaak.
- Giftig vir visse.
- Hou buite bereik van kinders, oningesigte persone en diere.
- Stoep weg van kos en voer.
- Herbetreding: Moenie behandelde gebied betree binne 2 dae nabsputting, tensy beskermd oorklere gedra word.
- Moenie behandelde gewas lande lant bewei of as voer gebruik nie.

### Lugtoediening:

- Verwittig en waarsku alle inwoners in die onmiddelike area van die beoogde toedienings en reik die nodige waarskuwings uit.
- Moenie spuit oor aangrensende areas, of water, of toelaat dat sputtstof daaroor waaie nie.

**Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit doeltreffend sal wees onder alle toestande 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 vooroms 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 gebrek aan prestasie van die betrokke middel as gevolg van die versuum van die gebruiker om etiket aanwysings te volg of as gevolg van die ontstaan van toestande wat nie voorseen kon word in die registrasie. Raadpleeg die verskaffer in die geval van enige onsekerheid.**

### VOORSORGMAATREËLS

- Dra beskermende oorklere en 'n gesigsmasker wanneer die sputtmengsel voorberei word.
- Dra 'n hoed, gesigbeskerming, oorpak en stewels wanneer

sputtmengsel toegediend word. Was besoedelde klere daagliks.

- Was hande en gesig met seep na meng of toedien van **CALCULUS 125 SE**.
- Moenie eet, drink of rook gedurende meng of toediening van **CALCULUS 125 SE** of voordat bloatgestelde liggaamsdele gewas is nie.
- Vermij besmetting van mense- of diergevoedsel, voer, eetgerei of drinkwater.
- Sputnewel moet nie ingeasem, of toegelaat word om te versprei oor enige nie-teigekeide areas soos watergebiede, weiding of ander gewasse nie.
- Verseker dat geen afvalprodukte oorbly houers, deur dit deeglik uit te spoel. Maak gate in gebruikte leë en vernietig die houers volgens voorgeskrewe reëls en op 'n veilige manier.
- Voorkom enige kontak met oë deur middel van sputtdryf of spatsels. In geval van toevalige kontak met oë, moet die oë met water gewas word vir ten minste 15 minute en indien oogirritasie voortduur, moet 'n mediese geneesheer geraadpleeg word.

### NOODHULPBEHANDELING

Verwyder die pasiënt van die bron van vergiftiging en hou hom onspanne en rustig.

**Oogkontak:** Spoel oë met skoon water vir ongeveer 20 minute, terwyl jy die ooglid per geleenthed oopmaak. Indien irritasie voortduur, moet 'n oogspesialis geraadpleeg word.

**Velkontak:** Spoel besmette liggaamsarea met baie seep en koue water af. Moenie die vel vryf nie. Plaas olyfolie of die geaffekteerde areas vir vinnige verligting. Indien irritasie voortduur moet 'n mediese geneesheer genader word.

**Inaseming:** Verwyder die pasiënt na waar daar vars lug is. Indien pasiënt sukkel om asem te haal of daar 'n irritasie merkbaar is, moet die mediese geneesheer geraadpleeg word.

**Inname per mond:** Moenie braking veroorsaak nie. Indie die pasiënt wakker is, spoel die mond deeglik uit met water and gee hom 1 tot 2 glase water om te drink. Moenie enige iets deur die mond toedien, wanneer die persoon bewusteloos is nie. Verkry onmiddellik geneeskundige hulp.

### NOTA AAN GENEESHEER:

Daar is geen spesifieke teenmiddel beskikbaar nie. Behandel ooreenkomsdig die simptome. (ontsmetting, lewensfunksie).

### WEERSTANDSWAARSUKWING EN DIE BESTUUR DAARVAN

**CALCULUS 125 SE** bevat FRAC Groepkodes 3 & 11 swamidores. Enige populasie van 'n spesifieke swam kan individue bevat wat natuurlik weerstandig is teenoor **CALCULUS®** en ander swamidores van die volgende Groepkodes 3 & 11. Daarom, indien hierdie swamidores herhaaldelik en uitsluitlik in die sputtprogram gebruik word, is dit moontlik dat hierdie weerstandigheidsindividue uiteindelik die swampopulasie kan oorheers. Hierdie weerstandigheidsswamme mag dalk nie deur **CALCULUS®** Of enige ander swamidores van Groepkodes 3 & 11 gekontroleer word nie.

### Om die swamidoderweerstand te vertraag of uit te stel:

- Vermij die ekslusiewe en herhaaldelike gebruik van swamidores van dieselfde Swamidoder Groepkode. Wissel af of gebruik produkte van verskillende Swamidoder Groepkodes

### **om die tenkmengsel mee te meng.**

- In geval van tenkmengsels of afwisseling met produkte van ander Swamddoder Groepkodes, verwys na die toepaslike individuele produksetket.
- Pas die konsep van Geïntegreerde Plaagbeheer toe, waardeur ander beheerraatels (chemiese, kulturele, biologiese) geïntegreer word in die siektebeheerprogram.

### **Anti-weerstandighedsstrategie:**

Ten einde die effektiwiteit van **CALCULUS 125 SE** te handhaaf, is dit noodsaklik om die ontwikkeling van weerstandighed van die siektes op swamddoders te verhoed van DMI (triasool-) en QOI-swamddodergroep (FRAC Groepkodes 3 & 11). Dit kan gehelp word deur:

- Moet nooit die aanbevoie dosis verminder as wat voorgeskryf is op die etiket nie.
- Moet nooit ander DMI (triasool-) of QOI-swamddoders, of verwante swamddoders, in dieselfde program met **CALCULUS 125 SE** gebruik nie.
- Moenie twee toedienings van **CALCULUS 125 SE** per seisoen oorskry nie.

### **KONTAK DIE REGISTRASIEHOUER VIR MEER INLIFTING RAKENDE DIE WEERSTANDIGHEIDSBESTUUR PROGRAM.**

### **GEBRUIKSAANWYSINGS:**

#### **GEBRUIK SLEGS SOOS VOORGESKRYF**

### **Algemene Inliting:**

Pyraclostrobin, wat een van die aktiewe bestanddele van **CALCULUS 125 SE**, is, en dit het getoon dat dit sekere effekte op die fisiologie van verskeie gewasse het, wat tot hul kommersiële voordeel kan werk. In sekere lande, is pyraclostrobin igeregistreer en aanbeveel as 'n gesondheidskuurplant, om oeste te vermeerder.

### **Verenigbaarheid:**

**CALCULUS 125 SE** is verenigbaar met produkte wat glifosaat en alpha-cypermethrin bevat. In die geval van ander onkruidmiddels, insekdoders en mietdoder, word dit aanbeveel dat die verenigbaarheid van **CALCULUS 125 SE** getoets behoort te word op 'n klein skaal voordat dit op 'n groot skaal gebruik word in sputmengsels.

It is nie nodig om enige addisionele landboukundige hulpmiddels te gebruik omdat die **CALCULUS 125 SE** formulasie alreeds maksimum hoeveelheid van bymiddels bevat. Die enigste uitsondering is wanneer vloeibare (50%) hoë kwaliteit ammonium sulfaat in 'n tenk gemeng word in streke waar dit bekend is dat die waterkwaliteit swak is. Onder sulke omstandighede moet die water versag word voordat **CALCULUS 125 SE** bygevoeg word.

### **Menginstruksies:**

Maak sputtenk halfvol met skoon water. Meet die aanbevoie hoeveelheid **CALCULUS 125 SE** af en meng dit vooraf met minstens 10ℓ water. Voeg hierdie mengsel by die water alreeds in die sputtenk terwyl dit aanhouwend geroer word. Vul die sputtenk met water en hou aan roer ten einde deeglike vermenging van die sputmengsel te verseker voordat met bespuiting begin word. Handhaaf roering deurgaans gedurende die sputproses. Die sputmengsel moet gebruik word op dag van vermenging

en moet nie vir enige bepaalde tyd in die sputtenk gelos word nie, bv. oormag.

### **Lugtoediening:**

Lugtoediening van **CALCULUS 125 SE** mag slegs deur 'n geregistreerde lugbespuitingsoperator wat 'n korrek gekalibreerde, geregistreerde vliegtuig, volgens die instruksies van SANS Kode 10118 (Aerial Application of Agricultural Pesticides) geskied. Verseker dat die sputmengsel eweredig oor die teiken area versprei word en dat die verlies van sputmengsel gedurende toediening tot minimum beperk word. Dit is daarom belangrik om aan die volgende vereistes te voldoen:

- Volume: 'n Sput volume van 30 - 40ℓ per hektaar word aanbeveel. Die registrasiehouer kan nie die effektiwiteit waarborg of verantwoordelik gehou word vir enige nadelige effekte indien hierdie produk teen 'n laer volume as hierbo aanbeveel word toegedien word.
- **Druppelbedekking:** 50 - 70 druppels per cm<sup>2</sup> moet op die teikenaree herwin word.
- **Druppelgrootte:** 'n Druppelspektrum met 'n VMD van 250 mikron word aanbeveel. Beperk die produksie van druppels kleiner as 150 mikron tot 'n a minimum aangesien hierdie 'n hoë drowing en verdampingspotensiaal het.
- **Vlieghoogte:** Handhaaf die hoogte van die sputtblalk op 3 - 4 meter bo die teiken. Moenie sput terwyl die vliegtuig duik, klim of draai nie.
- Gebruik geskikte atomiseringsapparaat, wat die vereiste druppelgrootte en bedekking sal produseer, maar daar die minste verlies van produk sal verseker. Die sputtsysteem moet 'n druppelspektrum met die laagste Relatiewe Span verseker.
- Plaas die atomiseerders in die binneste 60 - 75 % van die vlerkspan vlerkspan om te verhoed dat die druppels binne-in die vlerkpunt vorteks in beweeg.
- Die verskil in temperatuur tussen die nat en droéboltermometer van 'n swaaihygirometer moenie 8 °C oorskry nie.
- Staak bespuiting, indien die windspoed 15 km / h oorskry.
- Staak bespuiting onder turbulensië, onstabiele en droë toestande, gedurende die hitte van die dag.
- Bespuiting onder toestande temperatur inversie toestande (deur bo of binne die inversie lag te sput) en / of hoë lugvogtoestande (relatiewe humiditeit 80% en meer) mag tot die volgende problem aanleiding gee:
  - Verlaagde effektiwiteit aangesien die druppels as 'n wolk in die lug bly hang en moontlik verdamp (onvoldoende bedekking op teiken).
  - Skade aan ander sensitiewe gewasse of nie-geteikende areas as gevolg van wegdrowing van die sputtwolk na die nie-geteikende area.
- Verseker dat die lugbespuitingsoperator presies weet watter lande bespuit moet word.
- Dit is noodsaklik om 'n versekering van die lugbespuitingsoperator te verkry wat aan al die bogenoemde vereistes voldoen en dat relevante data in 'n logboek aangeteken sal word vir verder toekomstige verwysing.

Alle toedienings moet gemaak word met geskikte toerusting wat in goeie werkende toestand is en korrek gekalibreer is ten einde die verlangde bedekking te verskaf vir die betrokke toedieningsmetode.

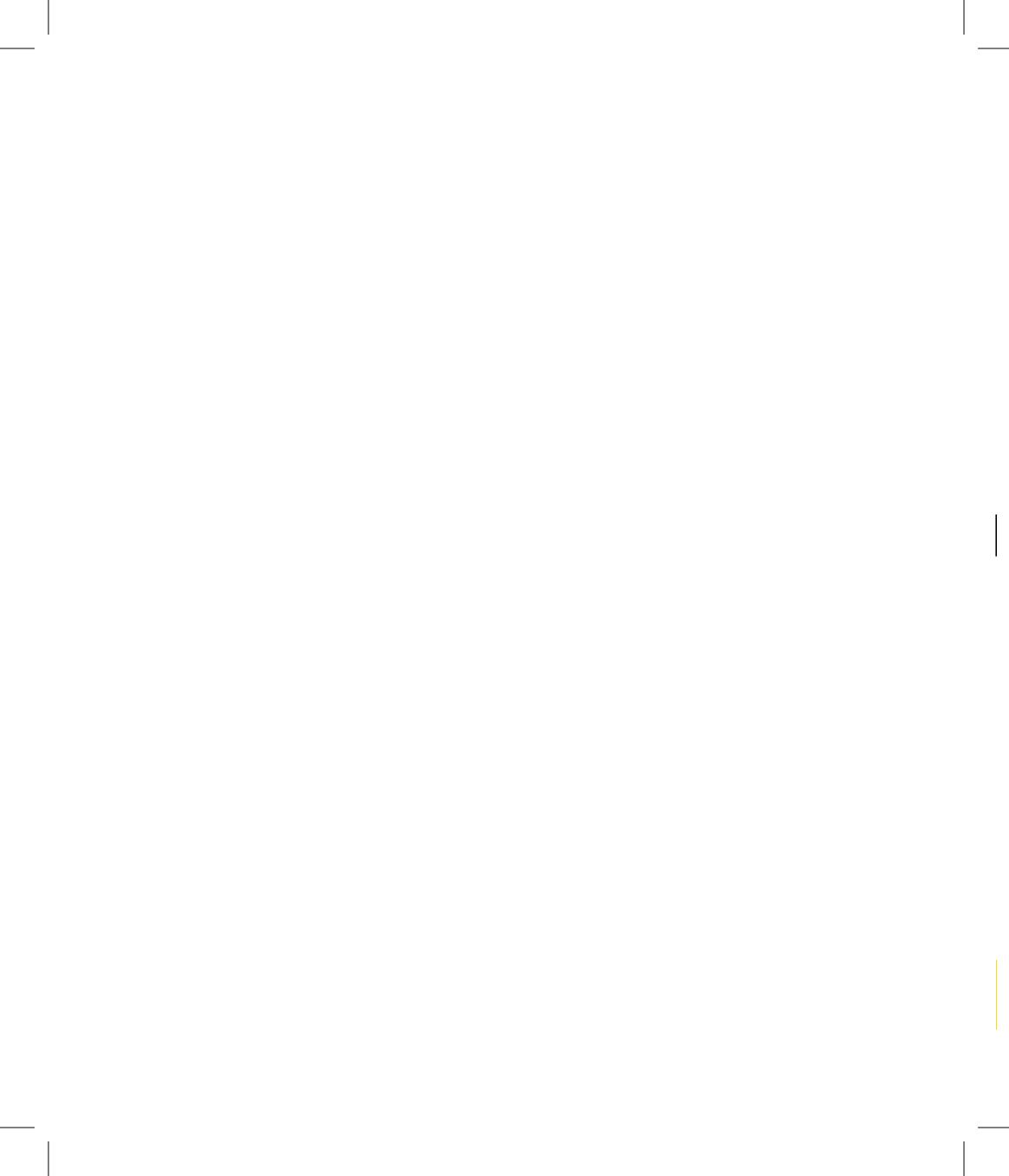
**Vir alle gewasse en siektes, moenie twee toedienings van CALCULUS® per seisoen oorskry nie.**

GEWAS	SIEKTE	Dosis ℓ / ha	AANWYSING VIR TOEDIENING
<b>GARS</b>	Blaarvlek ( <i>Rhynchosporium secalis</i> )	1,0	Voorkomende toediening, of by eerste tekens van siekte, at ver disease. Indien hōe infeksie druk voorkom , dien 'n tweede bespuiting, 3 – 4 weke later toe.  <b>Grondtoediening:</b> Dien toe in 200 – 400 ℓ water / ha. <b>Lugtoediening:</b> Dien toe in 30 – 40 ℓ water / ha.
	Bruinroes ( <i>Puccinia hordei</i> )	1,0	Dien sodra infeksie waargeneem word toe en herhaal , 3 - 4 weke later indien nodig.  <b>Grondtoediening:</b> Den toe in 200 - 400 ℓ water / ha. <b>Lugtoediening:</b> Dien toe in 30 – 40 ℓ water / ha.
	Netvlek ( <i>Pyrenophora teres</i> )	1,0	Voorkomende toediening, of by eerste tekens van siekte Herhaal die toediening, 3 - 4 weke later.  <b>Grondtoediening:</b> Dien toe in 200 - 400 ℓ water / ha. <b>Lugtoediening:</b> Dien toe in 30 – 40 ℓ water / ha.
	Poeieragtige skimmel ( <i>Erysiphe graminis</i> )	1,0	Dien sodra infeksie waargeneem word toe en herhaal , 3 - 4 weke later indien nodig.  <b>Grondtoediening:</b> Dien toe in 200 - 400 ℓ water / ha. <b>Lugtoediening:</b> Dien toe in 30 – 40 ℓ water / ha.
<b>MIELIES en SUIKER-MIELIES</b>	Grysblaarvlek ( <i>Cercospora zeina</i> )	1,6ℓ	<b>CALCULUS®</b> word aanbeveel in 'n geïntegreerde siekte beheer program. Gereelde en betroubare siekte beheer en voorkoming in hierdie program is afhanglik van voorkomende swamddoder toedienings.  Die eerste bespuiting van <b>CALCULUS 125 SE</b> behoort toegedien te word by groei stadium 31, wanneer die eerste nodus bokant die grondoppervlak opgemerk word (ook beskryf as die 5 – 6 blaar stadium). 'n Tweede bespuiting word aanbeveel by groei stadium 51 of wanneer die pluim sigbaar is. Indien verlengde siekte beheer verlang word, behoort 'n geskikte geregistreerde swamddoder toegedien word 3 - 4 weke later (raadpleeg die verskaffer vir details).
	Noordelike blaarskroei ( <i>Exserohilum turicum</i> )		In sekere areas of in toestande, waar lae siekte druk verwag word, dien <b>CALCULUS 125 SE</b> toe tussen groei stadium 31, (ook beskryf as die 5 - 6 blaar stadium) en groei stadium 35 (8 blaar stadium). Groei stadium 35 word beskou as die laaste moontlike tyd om te spuit met 'n konvensionele trekker. Indien langdurige siekte beheer benodig word, verwys na bovenoemde 'opvolg'toediening van <b>CALCULUS® 125 SE</b> . Siektedruk word verhoog deur volgende faktore: <ul style="list-style-type: none"><li>• Volgehoue klimaatstoestande wat bevordeik is vir siekte ontwikkeling.</li><li>• Gewas plantstand.</li><li>• Bron van die fungus inokulum soos onder minimum bewerkings praktyke.</li><li>• Die vatbaarheid van die gewas varieteit of hibried tot die siekte.</li><li>• Enige vertragting in die toediening van die swamddoder program.</li></ul> Grondtoediening: Dien toe as 'n vol bedekking bespuiting in 150 - 300 ℓwater / ha. Gebruik goed onderhoude, kwaliteit toerusting en dien toe as 'n fyn en eweredig verspreide spuit patroon op die plant oppervlak. <b>Rugsakspuit met handpalk:</b> Soos aanbeveel hierbo maar in tenminste 50 – 70 ℓ water / ha. <b>Lugtoediening:</b> Soos aanbeveel hierbo, in 40 ℓ water / ha.
	Roes ( <i>Puccinia sorghi</i> )	550 ml/ 100 ℓ water	<b>Ry toediening vir lae plantstand aanplantings:</b> Die dosis word gebaseer op 'n algehele grondtoediening van 1,6 ℓ / ha, in 300 ℓ water. Dit behoort toegedien te word met 'n tandem spuitbalk, met twee soliede- of hol keël spuitstukke, gemonteer op die balk bokant elke ry. Gebruik genoeg water (nie minder as 100 ℓ / ha), om totale bedekking van plante te verseker

GEWAS	SIEKTE	Dosis ℓ / ha	AANWYSING VIR TOEDIENING
<b>SOJABONE</b>	Soja boon roes ( <i>Phakopsora pachyrhizi</i> )	1,0ℓ	<p>Voorkomende bespuiting voor eerste tekens van siekte opgemerk word (gewoonlik by begin van blom) en herhaal 21 – 28 dae later Die korter interval van 21 dae is vir wanneer hoë siekte druk verwag word, as gevolg van weersomstandighede wat siekte ontwikkeling bevoordeel. Hierdie program sal ook die voorkoms van <i>Sclerotinia sclerotiorum</i> verminder.</p> <p><b>Grondtoediening:</b> Dien toe as 'n volbedekking bespuiting in 150 - 300 ℓ water / ha. Gebruik goed onderhoude, kwaliteit toerusting en dien toe as 'n fyn en eweredig verspreide sput patroon op die plant oppervlak.</p> <p><b>Lugtoediening:</b> Soos vir aanbevelings hierbo, in 40 ℓ water / ha.</p>
<b>SUIKERRIET</b>	Bruin roes ( <i>Puccinia melanocephala</i> )  Geelbruin roes ( <i>Puccinia spp.</i> ) Verwys na Nota hieronder	1,6ℓ	<p><b>Dien twee bespuitings toe.</b> Die eerste bespuiting is voorkomed by die 4 – 6 blaar stadium van die suikerriet of met die eerste tekens van bruin roes infestasie. Die tweede toediening moet geskied een maand na die eerste. 'n Voorkomende toediening vir die beheer van Geelbruin roes word sterk aanbeveel. Hierdie siekte ontwikkel vinnig en daarom mag 'n genesende toediening nie die verlangde resultate lewer nie. <b>Grondtoediening:</b> Dien toe as volbedekking in 200ℓ water / ha. <b>Lugtoediening:</b> Dien toe in 30 – 40 ℓ water / ha.</p>
<b>KORING</b>	Spikkeld blaar vlek en Glume vlek ( <i>Septoria spp.</i> ) Bruin roes / Blaar roes ( <i>Puccinia triticina</i> ) Stam roes ( <i>Puccinia graminis</i> ) Poeieragtige meeldou ( <i>Erysiphe graminis</i> ) Geel roes / Streep roes ( <i>Puccinia striiformis</i> )	1,0ℓ	<p>Begin toediening met eerste tekens van infeksie, maar nie later as vlagblaar verskeining nie. 'n Tweede bespuiting kan gemaak word 3 – 5 weke later indien hoë siekte druk voorkom.</p> <p><b>Grondtoediening:</b> Dien toe in 200 - 400 ℓ water / ha. <b>Lugtoediening:</b> Dien toe in 30 – 40 ℓ water / ha.</p>

**Nota:**

- Geelbruin roes op suikerriet (voorheen bekend as as Afrikaanse roes), kan voorkom in al die produksie areas van Suid Afrika. 'n Definisie en volle beskrywing van hierdie spesies is huidiglik in vordering. Hierdie roes het unieke simptome en kan maklik onderskei word van Bruin roes, deur die volgende visuele karaktereinskappe:
  - Die roes puise op die blaar oppervlak kom voor op beide die bo en onderkant van die blare.
  - Die roes puise op beide blaaroppervlaktes is duidelik oranje in kleur wanneer hulle oopbars.
- Erge Geelbruin roes infeksie is opgeteken op varieteite N25 en N46 en die siekte is ook opgemerk op N12, N31, N41, N43, N46, N49, N53.





# CALCULUS® 125 SE

Reg. No.: L10314 Act /Wet No. 36 of / van 1947

A suspo-emulsion contact and translaminar fungicide for the preventative control of diseases on barley, maize, soybeans, sugarcane and wheat.

'n Suspo-emulsie kontak- en translaminêreswamddoder vir die voorkomende beheer van siektes op gars, koring, mielies, sojabone en suikerriet.

## FRAC FUNGICIDE GROUP CODES

11&3

## FRAC SWAMDODERGROEP KODES

### ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL:

Epoxiconazole (triazole) ..... 62,5 g/l  
Pyraclostrobin (methoxy-carbamates) ..... 62,5 g/l

Manufacture Date:  
Vervaardigingsdatum:

Batch No.:  
Lotnommer:

### NET MASS/ INHOUD

l

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

### REGISTRATION HOLDER/REGISTRASIEHOUER:

Cedar Falls Properties 130 (Pty) Ltd.

Co. Reg.No. 2006/031383/07

61 Marshall Drive, Old Mill Industrial Park, Mount Edgecombe, South Africa, 4300 • Tel: 031 003 3486

• Emergency Number: Griffon Poison Information Centre

UN No.: 2902



HARMFUL  
SKADELIK

