

# CLOUT XTRA

**BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY**

**VERMYS NA BESONDERHEDE SOOS OP HOUER / SAK GEDRUK**


GEBRUIKSAANWYSINGS INGESLUIT Lotnommer Datum van vervaardiging

**REFER TO DETAILS AS PRINTED ON CONTAINER / BAG**

DIRECTIONS FOR USE ENCLOSED Batch Number Date of manufacture

## CLOUT XTRA

FUNGICIDE



Reg. No. L10466 , Act/Wet No. 36 of/van 1947 1: 08/08/2018

**A suspo-emulsion systemic fungicide with protective and curative action for the control of certain fungal diseases on crops as listed.**


**'n Suspo-emulsie sistemiese swamdoder met beskermende en genesende aksie vir die beheer van siektes op gewasse soos aangedui.**

FRAC FUNGICIDE GROUP CODE	1;3	FRAC SWAMDODERGROEPKODE
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ACTIVE INGREDIENTS / AKTIEWE BESTANDELE		
Carbendazim (benzimidazole)	250 g/ℓ	Karbendasim (bensimidasool)
Flusilazole (triazole)	125 g/ℓ	Flusilasool (triasool)





Registration Holder / Registrasiehouer  
**Meridian Agrochemical Company (Pty.) Ltd. / (Edms.) Bpk.**  
 Reg. No. 2000/010819/07  
 P.O. Box / Posbus 436, Modderfontein, 1645, South Africa / Suid- Afrika






20ℓ



HARMFUL / SKADELIK



## WARNINGS

Allow the following number of days between last application and harvest.

Maize and sweetcorn.....	14 days
Maize and sweetcorn (grazing).....	60 days
Soybeans.....	30 days
Soybeans (hay for feeding).....	42 days

**IMPORTANT:** The recommended withholding period between last application and harvest meets local residue level requirements but may not meet export requirements. If treated crops are intended for export, consult the relevant exporting regulatory body regarding withholding periods before applying a **CLOUT XTRA** spray programme.

- Handle with care.
- In case of poisoning contact a physician and present this label to him/her.
- Harmful if swallowed, inhaled or absorbed through skin.
- Can cause damage to eyes.
- Can irritate nose, throat and skin.
- Harmful to fish and wildlife.
- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- Store away from sources of ignition and away from foodstuffs, fertilisers and seeds.
- Keep out of reach of children, uninformed persons and animals.
- **FLAMMABLE:** Store under lock and key in original container tightly closed and in a dry, cool, well-ventilated area.
- **CLOUT XTRA** has been tested on some of the most important commercial cultivars without any phytotoxic effects. More susceptible cultivars may be released in the future, which need to be tested; for this apply **CLOUT XTRA** to a limited test area before commercial applications are made.
- **Re-entry:** Do not enter treated area until spray deposit has dried unless wearing protective clothing.
- **Aerial application:** Notify all inhabitants in the immediate area of the lands to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water or adjacent areas.

**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

- Do not inhale fumes or spray mist.
- Avoid contact with eyes and skin. The use of protective equipment such as a face mask and suitable gloves is recommended.
- In the case of eye contact wash immediately with plenty of water and seek medical advice.
- In case of ingestion do not induce vomiting. Administer one or two glasses of water and if available 30 to 50 g of activated charcoal as a slurry in water. Do not give anything by mouth to an unconscious person.
- Do not eat, drink or smoke while preparing or applying the spray mix, or before washing face and hands.
- Wash hands, arms and face thoroughly with non-abrasive soap and water after use, or in the case of accidental skin contact.
- Wash contaminated clothing after use.
- Avoid spray drift onto other crops, grazing, rivers, dams and other areas not under treatment.
- Do NOT apply to areas where surface water is present.
- Prevent contamination of food, feed, drinking water and eating utensils.

- Clean equipment before and after use. Dispose of wash water where it will not contaminate crops, pastures, rivers, dams or other water sources.
- Container disposal: Invert the empty container over the spray tank and allow to drain for at least 30 seconds after the flow has slowed to a drip. Rinse the empty container three times with a volume of water equal to a minimum of a third of the container volume. Add rinsings to the contents of the spray tank before destroying the container in the prescribed manner. Destroy empty containers by perforating and flattening before disposal by an approved chemical waste disposal facility or at a licensed landfill site according to local regulations. If recycling, replace cap and take containers to the designated recycling point. Do NOT contaminate rivers by disposal. Open burning or dumping of the empty container and its contents are prohibited.
- DO NOT use the empty container for any other purpose.

## SYMPTOMS OF HUMAN POISONING

Symptoms could include headache, faintness, fatigue, giddiness, excessive sweating, nausea, abdominal pains, vomiting, diarrhoea, anxiety, and tightness of the chest, blurred vision, muscle twitching (beginning in the eyelids and the tip of the tongue), small pupils, respiratory distress, convulsions and coma.

## FIRST AID

- **Skin contact:** Remove contaminated clothing and rinse contaminated body area thoroughly with plenty of soap and cold water for 15 minutes. Do not rub the skin.
- **Eye contact:** Flush contamination out of eyes with clean running water for at least 15 – 20 minutes holding the eyelid/s open. **Seek medical assistance.**
- **Ingestion:** Do not induce vomiting, unless instructed to do so by a doctor or poison control centre. **Never give anything by mouth to an unconscious person.** If the victim is conscious and able, administer 1-2 glasses of water, and if possible 30-50g of activated charcoal. If breathing is difficult, give oxygen. If breathing stops, apply artificial respiration. **Seek medical assistance immediately.**

## NOTE TO PHYSICIAN

No antidote known. Consider gastric lavage avoiding aspiration. Do not give ephedrine or related drugs.

## MODE OF ACTION

**CLOUT XTRA** is a systemic fungicide with protective and curative action. It is absorbed through the roots and green tissues, with translocation acropetally. It acts by inhibiting the development of the germ tubes, the formation of appressoria and the growth of mycelia.

## RESISTANCE MANAGEMENT

For resistance management, **CLOUT XTRA** is a group code 1 & 3 fungicide. Any fungus population may contain individuals naturally resistant to **CLOUT XTRA** and other group code 1 & 3 fungicides. The resistant individuals can eventually dominate the disease population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **CLOUT XTRA** or any other group code 1 & 3 fungicide.

### To delay fungicide resistance:

- Avoid exclusive, repeated use of fungicides from the same fungicide group code. Alternate or tank mix with registered products from different fungicide group codes.
- The choice of products to be used during one growing season should take the resistance strategy into consideration.
- Refer to individual product labels when alternating products or when using tank mixtures with registered products.
- Maintain fungicide use records for each field.
- Integrate other control methods (chemical, cultural, biological) into disease control programmes.

Since the occurrence of resistance cannot be forecast, users are advised to keep treated crops under close observation. If treatment is not effective following the use of **CLOUT XTRA** as recommended, a resistant strain may be present. If a resistant strain is positively identified, consideration should be

given to prompt use of a fungicide with a different mode of action, for which there is no record of resistance to the relevant disease. Meridian Agrochemical Company (Pty) Ltd will not accept any liability for performance failures in the event of a build-up of disease resistance resulting from inadequate resistance management practices as indicated on the label. For specific information on resistance management, contact the registration holder of this product or visit the FRAC website <http://www.frac.info/frac/index.html>.

## USE RESTRICTIONS

- Under severe drought conditions the uptake and activity of systemic products may be reduced. Therefore, **CLOUT XTRA** should not be applied during such conditions.
- The efficacy of **CLOUT XTRA** is not influenced by rain that occurs after 3 hours of application.
- Aerial application should only be considered if ground application is not possible.
- **CLOUT XTRA** should be applied as soon as the first disease symptoms appear.

## DIRECTIONS FOR USE

Use only as directed.

## MIXING INSTRUCTIONS

Shake the container thoroughly immediately before use. Half fill the spray tank with clean water. Do not use brackish water. Whilst agitating, add the recommended amount of **CLOUT XTRA** to the spray water and continue filling the tank to the required volume. Replace cap after pouring. Ensure the mixture is homogenous before application and agitate before and during application. When using **CLOUT XTRA** in tank mix combinations, full cognisance must be taken of all warnings, precautions and directions for use on that particular product's label. First, mix small quantities of the products separately with water. Check for any signs of incompatibility such as flocculation etc. **Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight.** If spraying is interrupted, the spray mixture in the tank should be agitated properly before spraying commences.

## COMPATIBILITY

The compatibility of **CLOUT XTRA** with other products depends on the formulations of the respective products, as well as the quality of the spray water to be used. As formulations change from time to time, it is recommended that a physical compatibility test be done prior to the tank mixture being made. Meridian Agrochemical Company (Pty) Ltd cannot be held responsible for damage to crops resulting from tank mixtures with products or formulations not tested.

## APPLICATION METHODS

### AERIAL APPLICATION

Aerial application may only be done by a registered aerial application operator using a registered and correctly calibrated aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Remedies). It is important to ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met:

#### Equipment

- Use suitable atomising equipment that will produce the desired droplet size and coverage of the target area and will ensure the minimum loss of product through drift.
- The operator must use a nozzle set-up that will produce a droplet spectrum with the lowest possible relative span.
- All nozzles and atomisers should be positioned within the inner 60-75% of the wingspan to prevent droplets from entering the wingtip vortices.

#### Application Parameters

- A minimum volume of 40 l spray mixture per ha is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy nor be held responsible for any adverse effects if this product is applied aurally at a lower volume rate than recommended.

- A droplet coverage of 25 – 35 droplets per square cm must be recovered at the target.
- A droplet spectrum with a VMD of 250 – 280 microns is recommended. Ensure that the production of fine droplets, with a VMD less than 150 microns, is restricted to a minimum.
- The height of the spray boom should be maintained at between 3 and 4m above the target.
- Do not spray when the aircraft is in a climb, at the top of a turn or during a dive or when banking.

#### Meteorological Conditions

- The difference between the wet and dry bulb readings, as determined using a whirling hygrometer, must not exceed 8 °C.
- Do not spray under turbulent, unstable conditions or during the heat of the day when rising thermals and downdraughts occur.
- Do not spray under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions as this may cause:
  - Reduced efficacy due to suspension and evaporation of small droplets in the air (Which leads to inadequate coverage).
  - Damage to other sensitive crops and/or non-target areas through drifting of the spray cloud away from the targeted area.
- Do not spray when the wind speed exceeds 15 km per hour.

#### General

- Ensure that fields are accurately marked and that the aerial spray operator knows exactly which fields to spray.
- **Obtain an assurance from the aerial spray operator that the above requirements will be met, and that the relevant data will be compiled in a logbook and kept for future reference.**

#### RECOMMENDATIONS

CROP & DISEASE	DOSAGE RATE	REMARKS
<b>MAIZE</b>  <b>Northern leaf blight</b> <i>(Exserohilum turcicum)</i>	1000 ml/ha  PLUS  Suitable adjuvant	Apply 2 applications at 3-week intervals.  Apply 1 <sup>st</sup> application at the first signs of disease and before 5% of the total leaf area is covered. Apply a second application 14-21 days later if the crop has not yet reached the hard dough stage 14 days after previous application. Use the shorter interval on highly susceptible hybrids or when weather conditions favour disease development.  The same application rate as recommended for Northern Leaf Blight will also control Leaf Rust ( <i>Puccinia sorghi</i> ).
<b>Grey leaf spot</b> <i>(Cercospora zeaemaydis)</i>	750ml/ha  PLUS  Suitable adjuvant	Apply 1 <sup>st</sup> application before disease symptoms reach the third leaf below the cob or 3% of total leaf area is covered by visible grey leaf spot. If more than 28 days remain from date of first spray until full grain maturity, apply a 2 <sup>nd</sup> spray. <b>Please note: The 2<sup>nd</sup> application must be made 28 days after 1<sup>st</sup> application and/or before 5% of the total leaf area is covered by visible grey leaf spot lesions.</b>
<b>SOYBEANS</b>  <b>Rust</b> <i>(Phakopsora pachyrhizi)</i>	<b>Ground application:</b>  600 ml in 500 L water/ha  OR  <b>Aerial application:</b>	Apply at the onset of flowering or at the 1 <sup>st</sup> signs of disease at or around early flowering. If the 1 <sup>st</sup> application is made during flowering or at early pod-fill a follow-up application 21-28 days later is recommended.

	750 mℓ in 40 L water/ha	Use shorter interval if weather conditions favour disease development. A single application is sufficient if disease appears late in the growing season. Ensure thorough coverage of the whole plant. Allow at least 42 days after application before use of hay for feeding. <b>Do not exceed 2 applications per season.</b>
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## WAARSKUWINGS

Laat die volgende aantal dae toe tussen laaste toediening en oes of beweiding:

Mielies en suikermielies.....	14 dae
Mielies en suikermielies (beweiding).....	60 dae
Sojabone.....	30 dae
Sojabone (hooi of beweiding).....	42 dae

**BELANGRIK:** Die aanbevole onthoudingsperiode tussen laaste toediening en oes voldoen aan die vereistes van plaaslike residuvlakke, maar mag dalk nie aan vereistes vir uitvoer voldoen nie. Indien behandelde gewasse vir uitvoer bestem is, moet die betrokke uitvoerliggaam genader word rakende die onthoudingsperiodes voordat 'n **CLOUT XTRA** spuitprogram toegedien word.

- Hanteer versigtig.
- In geval van vergiftiging kontak 'n geneesheer en wys hierdie etiket aan hom/haar.
- Skadelik indien produk ingesluk, ingeasem of deur vel geabsorbeer word.
- Mag skade aan oë veroorsaak.
- Mag neus, keel en vel irriteer.
- Skadelik vir visse en wildlewe.
- Giftig vir akwatiese organismes; mag langtermyn negatiewe invloed op wateromgewing veroorsaak.
- Bêre weg van ontvlambare stowwe, voedsel, voer, kunsmis en saad.
- Hou buite bereik van kinders, ongeligte persone en diere.
- **VLAMBAAR:** Bêre agter slot-en-grendel in die oorspronklike digsluitende houër in 'n droë, koel en goed geventileerde area.
- **CLOUT XTRA** is sonder enige fitotoksiseitskade op die mees belangrikste kommersiële kultivars getoets. Meer sensitiewe kultivars mag in die toekoms vrygestel word wat eers getoets moet word; hiervoor moet **CLOUT XTRA** eers op 'n klein toetsoppervlakte aangewend word, alvorens groot kommersiële bespuitings gemaak word.
- **Herbetreding:** Moenie behandelde gebied betree alvorens spuitneerslag droog is nie, tensy beskermende oorklere gedra word.
- **Lugtoediening:** Stel al die inwoners in die onmiddellike omgewing van die gebied wat gespuit gaan word in kennis en reik die nodige waarskuwings uit. Moenie oor water toedien of toelaat dat die spuitnewel wegdryf en gebiede besoedel wat nie behandel word nie.

**Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie. Die werking en doeltreffendheid daarvan kan beïnvloed word deur faktore soos abnormale grond-, klimaats- en bergingstoestande; kwaliteit van verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui word nie en die voorkoms van weerstand van die siektes teen die betrokke middel, sowel as die metode, tyd en akkuraatheid van die toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of vir nadelige invloede op mens of dier of vir 'n gebrek aan prestasie van die betrokke middel as gevolg van die versuim van die gebruiker om etiketaanwysings na te kom, of as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kon word nie. Raadpleeg die verskaffer in die geval van enige onsekerheid.**

## VOORSORGMATREËLS

- Moet nie die dampe of spuitnewel inasem nie.
- Vermy kontak met die vel en oë. Die gebruik van beskermende toerusting soos 'n gesigmasker en geskikte handskoene word aanbeveel.
- Indien oogkontak plaasvind, spoel uit met groot hoeveelhede water en verkry mediese advies.
- Indien ingesluk, moenie braking induseer nie. Dien een of twee glase water toe en indien beskikbaar 30 tot 50 g geaktiveerde koolstof as 'n pappery in water. Moenie enige iets per mond vir 'n bewustelose persoon gee nie.
- Moenie eet, drink of rook tydens vermenging of toediening van die produk of voordat hande en gesig gewas is nie.
- Was hande, arms en gesig deeglik met nie-skurende seep en water na gebruik, of in die geval van toevallige velkontak.
- Was besoedelde klere onmiddellik na gebruik.

- Vermy wegdrywing van spuitnewel na ander gewasse, weiding, riviere, damme en gebiede wat nie behandel moet word nie.
- Voorkom die besoedeling van voedsel, voer, drinkwater en eetgerei.
- Maak toedieningsapparaat voor en na gebruik skoon. Uitspoelwater moet nie gewasse, weidings, riviere, damme of ander waterbronne besoedel nie.
- Wegdoen van houër: Keer die leë houër oor die spuittenk of mengbak om en dreineer vir minstens 30 sekondes nadat die vloeitot 'n gedrup verminder het. Spoel die houër daarna **drie keer** uit met 'n volume water gelykstaande aan 'n minimum van een derde van die inhoud van die houër. Gooi die spoelwater by die inhoud van die spuittenk voordat die houër op die voorgeskrewe manier vernietig word. Vernietig leë houërs deur gate daarin te maak en dit plat te maak voordat dit na 'n goedgekeurde chemiese afvalverwerkingsfasiliteit of gelisensieëerde stortingssterrein volgens plaaslike regulasies geneem word. Indien dit herwin word, plaas deksel op houër en neem na aangewese herwinningspunt. MOENIE riviere met houërs besoedel nie. Verbranding en storting van leë houërs en inhoud daarvan, is streng verbode.
- MOENIE die houër vir enige ander doel gebruik nie.

## SIMPOTOME VAN MENSLIKE VERGIFTIGING

Simptome mag hoofpyn, flouheid, moegheid, duiseligheid, oormatige sweet, naarheid, maagpyne, braking, maagwerking, angstigheids, benoude bors, versteurde visie, spiertrekkings (begin by ooglede en op voorpunt van tong), verkleinde pupille, asemhalingsnood, stuiptrekkings en koma insluit.

## NOODHULP

- **Velkontak:** Verwyder die besoedelde klere en spoel besoedelde ligaamsdeel deeglik vir 15-minute lank met genoegsame seep en koue water. Moenie die vel vryf nie.
- **Oogkontak:** Spoel oë vir ten minste 15 – 20 minute uit terwyl die ooglede oopgehou word. **Verkry mediese hulp.**
- **Ingesluk:** Moenie braking induseer nie, tensy in opdrag van 'n dokter of die gifbeheersentrum. **Moet nooit iets per mond aan 'n bewustelose persoon gee nie.** Indien die slagoffer by sy bewussyn is, dien 1-2 glase water toe en indien moontlik 30-50g geaktiveerde steenkool. Indien asemhaling moeilik is, dien suurstof toe. Indien asemhaling ophou, dien kunsmatige asemhaling toe. **Verkry onmiddellik mediese hulp.**

## NOTA AAN GENEESHEER

Geen spesifieke teengif. Oorweeg maagspoeling, maar verhoed aspirasie. Moet nie efedrien of verwante middels toedien nie.

## METODE VAN WERKING

**CLOUT XTRA** is 'n sistemiese swamdoder met beskermende en genesende werking. Dit word deur die wortels en groenweefsel geabsorbeer en akropetaal getranslokeer. Die werking is van so 'n aard dat dit die ontwikkeling van kiembuise, die vorming van appressoria en misiliumgroei inhibeer.

## WEERSTANDBESTUUR

Vir weerstandsbestuur is **CLOUT XTRA** 'n groepkode 1 & 3 swamdoder. Enige populasie van 'n spesifieke siekte mag individue insluit wat 'n natuurlike weerstand teen **CLOUT XTRA**, of enige ander groepkode 1 & 3 swamdoder het. Indien hierdie swamdoders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die siektepopulasie oorheers. Hierdie weerstandbiedende swamme sal waarskynlik nie deur **CLOUT XTRA** of enige ander groepkode 1 & 3 swamdoder beheer word nie.

### Om weerstand teen swamdoders te vertraag:

- Vermy die eksklusiewe herhaaldelike gebruik van swamdoders met dieselfde groepkode. Wissel af met of gebruik tenkmengsels van produkte in verskillende swamdodergroepkodes.
- Die produkkeuses wat gedurende 'n groeiseisoen gebruik gaan word moet die weerstandstrategie in ag neem.
- Sien toepaslike individuele produketikette wanneer daar tussen produkte of tenkmengsels met geregistreerde produkte afgewissel word.
- Hou swamdoderrekords van elke land.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in swamdoderprogramme.



Aangesien die voorkoms van weerstandbiedendheid moeilik is om te bepaal, is dit uiters belangrik om die behandelde gewasse noukeurig te ondersoek. Indien die behandeling nie effektief was met die gebruik van **CLOUT XTRA** soos voorgeskryf nie, mag daar 'n weerstandbiedende-populasie teenwoordig wees. Indien so 'n weerstandbiedende-populasie positief geïdentifiseer word, moet daar onmiddellik 'n swamdoderbespuiting wat 'n ander werkswyse het, waar daar geen bewys van weerstand teen die siekte voorkom, gedoen word. Meridian Agrochemical Company (Edms.) Bpk. sal geen verantwoordelikheid aanvaar vir enige gebrek aan prestasie in die geval van die opbou van siekteweerstand as gevolg van onvoldoende weerstandsbestuurspraktyke soos aangedui op die etiket nie. Vir spesifieke inligting oor weerstandsbestuur kan die registrasiehouer van hierdie produk gekontak word of die FRAC webwerf by <http://www.frac.info/frac/index.html> besoek word.

## **GEBRUIKSBEPERKINGS**

- Die opname en aktiwiteit van sistemiese swamdoders kan verlaag word onder ernstige droogte toestande. Gevolglik moet **CLOUT XTRA** nie onder sulke toestande toegedien word nie.
- Die effektiwiteit van **CLOUT XTRA** sal nie 3 ure na bespuiting deur reën of besproeiing beïnvloed word nie.
- Lugbespuiting moet slegs oorweeg word indien grondtoediening onmoontlik is.
- Begin spuitprogramme met **CLOUT XTRA** sodra die eerste siekte-simptome verskyn.

## **GEBRUIKSAANWYSINGS**

**Gebruik slegs soos aangedui.**

## **MENGINSTRUKSIES**

Skud die houer deeglik net voor gebruik. Maak die spuittenk halfvol met skoon water. Moenie brakwater gebruik nie. Voeg die verlangde hoeveelheid **CLOUT XTRA** by terwyl water aanhoudend geroer word. Maak die spuittenk tot by die verlangde volume vol. Sit prop terug op houer. Verseker dat mengsel homogeen voor toediening is en dat roering voor en tydens toediening geskied. Wanneer **CLOUT XTRA** in tenkmengsels met ander middels gebruik word, moet deeglik kennis geneem word van die waarskuwings, voorsorgmaatreëls en gebruiksaanwysings van daardie betrokke produketiket. Meng eerstens klein hoeveelhede van die produkte met water. Kyk vir enige tekens van onverenigbaarheid soos flokkulasie ens. **Die tenkmengsel moet onmiddellik uitgespuit word en nie toegelaat word om oornag in die spuittenk te staan nie.** Indien die spuitproses onderbreek word, moet die spuitmengsel in die tenk behoorlik geroer word voordat die spuitproses in aanvang neem.

## **VERENIGBAARHEID**

Die verenigbaarheid van **CLOUT XTRA** met ander produkte sal van die formulerings van die onderskeie produkte afhang, asook van die kwaliteit van die spuitwater wat gebruik word. Soos formulerings van tyd tot tyd verander, is dit raadsaam om eers 'n fisiese verenigbaarheidstoets te doen voordat tenkmengsels gemaak word. Meridian Agrochemical Company (Edms.) Bpk. kan nie verantwoordelik gehou word vir skade aan gewasse a.g.v. tenkmengsels met produkte of formulerings wat nie getoets is nie.

## **TOEDIENINGSMETODES**

### **LUGTOEDIENING**

**CLOUT XTRA** mag slegs deur 'n geregistreerde lugbespuitingsoperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS Kode 10118 (Aerial Application of Agricultural Remedies) gedoen word. Dit is belangrik om te verseker dat die spuitmengsel eweredig oor die teikenarea versprei word en dat die verlies aan spuitmengsel tydens toediening tot 'n minimum beperk word. Dit is dus belangrik om aan die volgende vereistes te voldoen:

### **Toerusting**

- Gebruik geskikte atomiseringsapparaat wat die vereiste druppelgrootte en bedekking sal produseer, maar wat die minste verlies van produk deur wegdrywing sal verseker.
- Die operateur moet 'n spuitkopstelsel opstel wat 'n druppelspektrum met die kleinste moontlike relatiewe spanwydte sal produseer.
- Al die spuitkoppe en atomiseerders moet in die binneste 60 - 75% van die vlerkspan geplaas word om te verhoed dat die druppels binne-in die vlerkvorteks inbeweeg.

### Toedieningsparameters

- 'n Minimum volume van 40 l spuitmengsel per hektaar word aanbeveel. Aangesien hierdie produk nie teen 'n verlaagde volume getoets is nie, kan die registrasiehouer nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige nadelige effek indien hierdie produk teen 'n laer volume as hierbo aanbeveel, uit die lug toegedien word nie.
- 'n Druppelbedekking van 25 - 35 druppels per vierkante cm moet op die teikenarea herwin word.
- 'n Druppelspektrum met 'n VMD van 250 - 280 mikron word aanbeveel. Verseker dat die produksie van fyn druppels (kleiner as 150 mikron) tot 'n minimum beperk word.
- Die hoogte van die spuitbalk moet tussen 3 en 4 meter bokant die teiken gehandhaaf word.
- Moet nie spuit wanneer die vliegtuig besig is om te klim, te draai, te duik, of terwyl dit uitklim nie.

### Meteorologiese Toestande

- Die verskil tussen die nat- en droëbollesing, soos met 'n swaaihigrometer bepaal, moet nie 8°C oorskry nie.
- Moenie tydens turbulente, onstabiele toestande, of gedurende die hitte van die dag wanneer stygende en dalende konveksie-windbewegings plaasvind, toedien nie.
- Moenie tydens temperatuur-inversie-toestande (deur bokant of binne-in die inversielaag te spuit) en/of gedurende hoë humiditeitstoestande toedien nie, aangesien dit kan lei tot:
  - Verlaagde effektiwiteit a.g.v. suspensie of verdamping van klein druppels in die lug (wat tot onvoldoende bedekking op teikenarea lei).
  - Skade aan ander sensitiewe gewasse en/of nie-teikenareas deur wegdrywing van die spuitwolk vanaf die teikenarea.
- Moenie spuit wanneer die windspoed 15 km per uur oorskry nie.

### Algemeen

- Verseker dat die lande akkuraat gemerk is en dat die spuitoperateur presies weet watter lande gespuit moet word.
- **Verkry die versekering van die spuitoperateur dat aan die bogenoemde vereistes voldoen sal word en dat alle relevante data in 'n logboek aangeteken sal word vir toekomstige gebruik.**

### AANBEVELINGS

GEWAS & SIEKTE	DOSIS	OPMERKINGS
<b>MIELIES</b>  <b>Noordelike blaarskroei</b> <i>(Exserohilum turcicum)</i>	1 000 ml/ha  PLUS  Geskikte byvoegmiddel	Dien 2 toedienings met 3 weke intervalle toe.  Dien 1ste toediening met eerste tekens van die siekte toe en voordat 5% van die totale blaararea met sigbare simptome bedek is. Dien die 2de toediening 14-21 dae later toe indien die gewas nog nie die hardedeeg-stadium bereik het 14 dae na die eerste toediening nie. Gebruik die korter interval op hoogs vatbare kultivars of wanneer weersomstandighede gunstig is vir siekteontwikkeling.  Dieselfde toedieningsdosis wat vir Noordelike blaarskroei aanbeveel word, sal ook Blaarroes ( <i>Puccinia sorghi</i> ) beheer.
<b>Grysblaarvlek</b> <i>(Cercospora zeae-maydis)</i>	750 ml/ha  PLUS  Geskikte byvoegmiddel	Dien die 1ste toediening toe voor die siekte simptome op die derde blaar direk onder die stronk verskyn of voordat 3% van die totale blaaroppervlakte met sigbare grysblaarvlek besmet is. Indien daar meer as 28 dae vanaf datum van 1ste bespuiting en volle graanrypheid verloop, herhaal met 'n 2de bespuiting.  <b>Let wel: Die tweede toediening moet 28 dae na die eerste gedoen word en/of wanneer 5% van</b>

		<p><b>die totale blaaroppervlakte met sigbare grysblaarvlek-letsels bedek is.</b></p> <p>Dien toe as 'n voldekbepuiting in 300 – 400 ℓ water/ha (trekker); 50 – 100 ℓ water/ha (rugsak).</p>
<p><b>SOJABONE</b></p> <p><b>Roes</b> (<i>Phakopsera pachyrhizi</i>)</p>	<p><b>Grondtoediening:</b></p> <p>600 ml in 500 ℓ water/ha</p> <p>OF</p> <p><b>Lugtoediening:</b></p> <p>750 ml in 40 ℓ water/ha</p>	<p>Dien toe met aanvang van blom of met die eerste tekens van die siekte om en by vroeë blom. Indien die 1ste bespuiting gedurende blom of vroeë peulvul gemaak is, word 'n opvolgbespuiting 21-28 dae later aanbeveel.</p> <p>Gebruik korter intervalle indien weersomstandighede gunstig is vir siekte ontwikkeling. 'n Enkele bespuiting is genoegsaam indien siektes laat in die seisoen voorkom. Verseker deeglike bedekking van die hele plant en laat ten minste 42 dae toe na toediening voor gebruik as hooi of voer.</p> <p><b>Moenie 2 toedienings per seisoen oorskry nie.</b></p>