



UNIMOC EC

BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY

GEBRUIKSAANWYSINGS INGESLUIT
VERWYS NA BESONDERHEDE
SOOS OP HOUER / SAK GEDRUK

Lotnummer
Datum van vervaardiging

UNIMOC EC

HERBICIDE

Reg. No. L7341, Act/Wet No. 36 of/van 1947
N – AR 1553

1: 12/09/2003

An emulsifiable concentrate herbicide for the pre-emergence control of most annual grasses and certain broadleaf weeds in the crops as indicated.

'n Emulgeerbare konsentraat onkruid-doder vir die voor-opkoms beheer van eenjarige grasse en sekere breëblaar-onkruide in die gewasse soos aangedui.

HRAC HERBICIDE GROUP CODE	K3	HRAC ONKRUIDDODER GROEPKODE
ACTIVE INGREDIENT / AKTIEWE BESTANDEEL		
Metolachlor (chloroacetanilide)	960 g/ℓ	Metolachloor (chloorasetanilied)

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

Distributed by / Versprei deur

intelligent crop solutions

20ℓ

HARMFUL / SKADELIK

DIRECTIONS FOR USE ENCLOSED
Batch Number
Date of manufacture

REFER TO DETAILS AS PRINTED
ON CONTAINER / BAG

WARNINGS

- Handle with care.
- Poisonous if swallowed.
- May cause eye and skin irritation as well as skin sensitisation.
- Can be toxic to fish.
- Store under lock and key in a cool place.
- **FLAMMABLE** – Do not store or open container near open flame.
- Store away from food, feed, fertilizer and other agricultural products.
- Keep out of reach of children, uninformed persons and animals.
- **Aerial application:** Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings.
Do not apply over water bodies and ensure that spray drift will not contaminate areas not under treatment.
- In case of poisoning, call a doctor and show this label to him.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be effective under all conditions. The activity 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 weed against the remedy, 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 or harm to man or animal, or for lack of performance of the remedy concerned due to failure by 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 skin and eye contact by wearing protective clothing when mixing the product.
- In case of accidental eye contact, flush with plenty of water and get medical attention if necessary.
- Wash with soap and water after use and accidental skin contact as well as contaminated clothing.
- Do not eat, drink or smoke while mixing or applying the product or before washing hands and face.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean applicator after use. Dispose of rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Prevent contamination of food, feeds, drinking water and eating utensils.
- Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed to a drip. Thereafter rinse the empty container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsate to the contents of the spray tank.
- Destroy the empty container and do not use for any other purpose.

SYMPTOMS OF HUMAN POISONING

Irritation effects on skin and mucous membranes are the common reactions. May cause eye irritation. May cause skin irritation and allergic reaction. May cause skin sensitisation. If large quantities are ingested, nausea, vomiting abdominal distress and diarrhoea may occur.

FIRST AID TREATMENT

Skin contact: Remove contaminated clothing as well as shoes and leather goods. Wash body with non-abrasive soap and lots of water. Persons providing first aid must wear gloves to avoid self-contamination. Seek medical advice if necessary.

Eye contact: Flush eyes immediately with large amounts of clean water for approximately 15 minutes. Occasionally lift the upper and lower lids. If eye irritation persists, get medical attention.

Inhalation: Remove patient to a well ventilated area and loosen clothing around the neck. Perform artificial respiration and administer oxygen if necessary. Keep patient warm and calm. **Seek medical advice immediately.**

Ingestion: Do not induce vomiting. Get medical attention immediately. Administration of gastric lavage or oxygen should be performed by qualified medical personnel.

NOTE TO PHYSICIAN

No specific antidote. Treat symptomatically and supportively. Keep patient under observation. Perform gastric lavage and catharsis if the victim is not unconscious. If less than 10 mg per kg body weight was ingested, administer 30 – 60 g activated charcoal in 150 – 300 ml water.

USE RESTRICTIONS

- Do not use **Unimoc EC** on experimental or newly released cultivars/varieties without first consulting your supplier or the seed company concerned.
- Do not use **Unimoc EC** on poorly drained soils or soils with a compaction layer, as under these conditions waterlogging can occur and the herbicide may cause crop injury.
- Do not apply **Unimoc EC** to any crop or situation not mentioned in this instruction leaflet.
- Only apply **Unimoc EC** using an accurate and safe application technique.
- Heavy rain on very sandy soils low in organic matter as well as flood irrigation can reduce weed control performance.
- Optimum weed control is obtained on a fine even seedbed, free of clods, trash and weeds. **Unimoc EC** will also give weed control in stubble mulch or minimum tillage situations.
- **Unimoc EC** may damage the following crops under the condition mentioned: Dry beans and sunflowers on shallow, sandy, waterlogged soils with an impermeable clay layer at less than 1 m depth. **Unimoc EC** damage to dry beans is sometimes associated with hot, dry weather and a plough-sole in the soil.
- If **Unimoc EC** is used in a tank mix with other recommended herbicides, consideration should be given to the restrictions of those respective products.
- When **Unimoc EC** is used on dry beans, ensure that the seed is treated with suitable fungicides to control seedling diseases such as *Pythium spp.*, *Rhizoctonia spp.*, etc.

DIRECTIONS FOR USE

Use only as directed.

MIXING INSTRUCTIONS

Half-fill the spray tank with clean water, then add the required amount of **Unimoc EC** to the water in the tank while agitating. Fill the spray tank to the desired volume. Should tank mixtures with other herbicides be made, follow the respective manufacturers' label recommendations. **Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight.** Spraying equipment must be thoroughly flushed out at the end of the spraying operation.

COMPATIBILITY

The compatibility of **Unimoc EC** 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. **Unimoc EC** is compatible with **Equate SL** (L. 7158) and most pyrethroid insecticides.

APPLICATION METHODS

Ensure that the equipment is correctly calibrated and is checked regularly during application to ensure even and accurate application. Knapsack sprayers or tractor mounted boom sprayers may be used. A spray volume of 200-300 l/ha should be used for ground application and can be applied via flat fan-type nozzles, preferably the low drift type to avoid fine droplets. Use 30 – 40 l/ha spray mixture for aerial application. **Constant agitation throughout the spray operation is essential.** Only clean water should be used.

Rain is essential to leach the product into the zone of the germinating weeds and therefore 10 –15 mm of rain or irrigation is needed within 7 days of application to ensure optimum results. Under drier conditions, weeds may emerge. These should be controlled with either a shallow cultivation, which will also incorporate the herbicide into the upper 10 – 20 mm of soil.

If soil crusting becomes a problem, rotary harrow in the same direction that the rows are planted, to assist maize germination. Harrowing after application may reduce weed control if untreated soil is thrown into deep planter furrows. Ensure that sufficient fertiliser is placed near the seed at planting to promote vigorous seedling growth.

Apply **Unimoc EC** preferably with or directly after planting but not later than three days after planting. Always use the lower rates on lighter soils and where the weed pressure is low.

Ground application:

Unimoc EC may be applied with any properly calibrated medium or high volume sprayer which is equipped with an efficient agitation mechanism capable of adequate coverage and even distribution. Best results are obtained using flat fan-type spray nozzles and applying a minimum spray volume of 200 l/ha.

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 (hydraulic nozzles or rotary atomisers) 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 75% of the wingspan to prevent droplets from entering the wingtip vortices.

Application Parameters

- A minimum volume of 30 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.
- 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 by a whirling hygrometer, must not exceed 8 °C.
- Do not spray under turbulent, unstable conditions nor 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).
- 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.

Pre-emergence aerial application:

- A minimum spray volume of 30 l/ha.
- A minimum of 20 to 30 droplets per cm² must be recovered on the target area.
- Employ a droplet spectrum with VMD of 350 – 400 micron. Ensure that the production of fine droplets (less than 150 microns with high drift and evaporation potential) is restricted to a minimum.

RECOMMENDATIONS

Unimoc EC applied pre-emergence to control annual grasses and certain broadleaf weeds

CROP	% CLAY	Unimoc EC (ℓ/ha)	TIMING OF APPLICATION
Dry beans, soy beans, groundnuts and sunflowers	0 – 10	0.8 – 0.9	Apply to a well prepared seedbed after planting but before crop and weed emergence. Use the higher rate for extended and improved control of broadleaf weeds, crab finger grass and yellow nutsedge. Use the higher rate on soils with > 1.0 % organic matter content.
	11 – 20	0.9 – 1.2	
	21 – 30	1.2 – 1.5	
	> 30	1.5 – 2.0	

- Use the correct rates for different row and band widths.

Unimoc EC in tank mixture with Equate SL applied pre-emergence for broad spectrum weed control

CROP	% CLAY	Unimoc EC (ℓ/ha)	Equate SL (mℓ/ha)	TIMING OF APPLICATION
Dry beans, soy beans and groundnuts	0 – 15	0.8	300	Apply to a well prepared seedbed after planting but before crop and weed emergence. Use the higher rate for extended and improved control of broadleaf weeds, crab finger grass and yellow nutsedge. Use the higher rate on soils with > 1.0 % organic matter content.
	16 – 25	1.0	400	
	26 – 35	1.2	500	

- Use the correct rates for different row and band widths.

Unimoc EC in tank mixture applied pre-emergence to control annual grasses and certain broadleaf weeds in sugar cane

CROP	% CLAY	Unimoc EC (ℓ/ha)	TIMING OF APPLICATION
Plant and ratoon sugar cane	0 – 30	1.5 – 2.5	Apply to plant or ratoon cane fields before weed emergence. Use the higher rate for higher clay content soils and to improve control of <i>Panicum maximum</i> and <i>Cyperus esculentus</i> . Use 3.0 ℓ/ha on soils with more than 35 % clay and with > 1.0 % organic matter content. If grass weeds have started to emerge, paraquat 200 SL may be added at 1.5 ℓ/ha.
	> 30	2.5 – 3.0	

TANK MIXTURES:

For additional pre-emergence control of broadleaf weeds in sugarcane, **Bastion SC** at 2,0 – 3,0 ℓ/ha can be added to the above rates of **Unimoc EC**. Use the lower rate of **Bastion SC** on light to medium soils and the higher rate on medium to heavy soils.

WEEDS CONTROLLED BY Unimoc EC:

Grass species (pre-emergence only)

<i>Brachiaria eruciformis</i>	Sweet signal grass
<i>Chloris virgata</i>	Feathertop Chloris
<i>Dactyloctenium aegyptium</i>	Crowfoot
<i>Digitaria sanguinalis</i>	Crab finger-grass
<i>Echinochloa crusgalli</i>	Banyard grass
<i>Eleusine indica</i>	Goose grass
<i>Panicum maximum</i>	Common buffalo grass
<i>Panicum schinzii</i>	Sweet buffalo grass
<i>Pseudobrachiaria deflexa</i>	False signal grass
<i>Setaria pallide-fusca</i>	Red bristle grass

Setaria verticillata
Tragus berteronianus
Tragus racemosus
Urochloa mozambicensis
Urochloa panicoides

Sticky bristle grass
Small carrotseed grass
Large carrotseed grass
Bushveld herringbone grass
herringbone grass

Variable control (pre-emergence)

Amaranthus hybridus
Amaranthus spinosus
Amaranthus thunbergii
Chenopodium carinatum
Cleome monophylla
Commelina benghalensis
Cyperus esculentus
Datura ferox
Datura stramonium
Galinsoga parviflora
Nicandra physaloides
Portulaca oleracea

Common pigweed
Thorny pigweed
Red pigweed
Green goosefoot
Spindlepod
Bengal wandering jew
Yellow nutsedge
Large thorn apple
Common thorn apple
Gallant soldier
Apple of Peru
Purslane

NOTES:

The variable control of weeds mentioned directly above is dependent upon environmental conditions.

The pre-emergence control of *Cyperus esculentus* is dependent on the following:

- Where a dosage choice is given, use the higher rate.
- Planting into a firm and fine seedbed must be preceded by a deep ploughing.
- **Unimoc EC** must be applied within 2 days after planting.
- Sufficient continual soaking rain or irrigation (at least 15 mm on light soils and 25 mm on heavy soils) must fall with 7 days of spraying to leach the herbicide into the germination zone.

To increase the spectrum of broadleaf weeds controlled, it is recommended that either tank mixes or follow-up application of standard registered broadleaf herbicides are used in accordance with the manufacturer's label recommendations.

The registration holder does not accept any liability in respect of the control of unlisted weeds.

WAARSKUWINGS

- Hanteer versigtig.
- Giftig indien ingesluk.
- Mag oog- en velirritasie veroorsaak sowel as velsensitivering.
- Kan giftig wees vir visse.
- Bêre agter slot-en-grendel in 'n koel plek.
- **VLAMBAAR** – bêre houer weg van oopvlamme en maak houer weg van oopvlamme oop.
- Bêre weg van voedsel, voer, kunsmis en ander landbouprodukte.
- Hou buite bereik van kinders, oningeligte persone en diere.
- **Lugtoediening:** Stel al die inwoners in die onmiddellike omgewing van die gebied wat gespuit gaan word in kennis en reik nodige waarskuwings uit. Moenie oor wateroppervlaktes toedien of toelaat dat die spuitnewel wegdryf en gebiede besmet wat nie behandel moet word nie.
- In geval van vergiftiging ontbied 'n geneesheer en toon hierdie etiket aan hom/haar.

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 die verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui word nie en die voorkoms van weerstand van die onkruid teen die betrokke middel sowel as die tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordlikheid 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. Raadpleeg die verskaffer in die geval van enige onsekerheid.

VOORSORGMAATREËLS

- Moet nie spuitnewel inasem nie.
- Vermy kontak met die vel en oë deur beskermende oorklere te dra wanneer die produk gemeng word.
- Indien produk in aanraking met die oë kom, spoel met water en kry mediese aandag indien nodig.
- Was met seep en water na gebruik en toevallige velkontak; so ook die besoedelde klere.
- Moet nie eet, drink of rook tydens vermenging of toediening van die produk of voordat hande en gesig gewas is nie.
- Vermy wegdrywing van spuitnewel op ander gewasse, weiveld, riviere, damme en plekke wat nie behandel moet word nie.
- Maak toedieningsapparaat skoon na gebruik. Uitspoelwater moet nie gewasse, weiveld, riviere, damme en boorgate besoedel nie.
- Voorkom die besoedeling van voedsel, voer, drinkwater en eetgerei.
- Keer die leë houer om oor die spuit- of mengtenk en dreineer vir minstens 30 sekondes nadat die vloeï tot 'n gedrup verminder het. Spoel die leë houer daarna **drie keer** uit met 'n volume skoon water gelykstaande aan 'n minimum van 10% van die houer. Gooi die spoelwater by die inhoud van die spuittenk voordat die houer vernietig word.
- Vernietig die leë houer, moet vir geen ander doel gebruik nie.

SIMPTOME VAN MENSLIKE VERGIFTING

Irritasie van vel en slymvlies is tipiese reaksies. Mag irritasie van die oë veroorsaak. Dit mag ook irritasie van die vel en 'n allergiese reaksie veroorsaak. Mag velsensitiwiteit veroorsaak. As groot hoeveelhede mondelings ingeneem word, kan dit naarheid, braking, abdominale teerheid en diaree veroorsaak.

NOODHULPBEHANDELING

Velkontak: Verwyder besoedelde klere, sowel as skoene en leeritems. Was die hele lyf met 'n sagte seep en baie water. Moenie 'n skuurmiddel gebruik nie. Persone wat noodhulp toedien, moet handskoene dra om selfkontaminasie te voorkom. Verkry mediese advies indien benodig.

Oogkontak: Was oë onmiddellik uit met groot hoeveelhede skoon water, vir ongeveer 15 minute. Lig die onderste en boonste ooglede nou en dan op. Indien oogirritasie aanhou, verkry mediese hulp.

Inaseming: Verwyder die persoon van die bron van vergiftiging na 'n goed geventileerde area en maak klere om die nek los. Pas kunsmatige asemhaling toe en dien suurstof toe indien nodig. Hou pasiënt warm en rustig. **Ontbied onmiddellik mediese hulp.**

Mondelike inname: Moenie braking induseer nie. Ontbied onmiddellik mediese hulp. Toediening van maagspoeling of suurstof moet deur opgeleide mediese personeel toegedien word.

NOTA AAN GENEESHEER

Geen spesifieke teengif. Behandel simptome en ondersteunend. Hou pasiënt onder waarneming. Dien maagspoeling en suiwing toe indien die pasiënt nie bewusteloos is nie. Indien minder as 10 mg per kg liggaamsgewig ingeneem is, dien 30 – 60 g geaktiveerde houtskool in 150 – 300 ml water toe.

GEBRUIKSBEPERKINGS

- Moet nie **Unimoc EC** op eksperimentele of nuut vrygestelde kultivars gebruik alvorens die vervaardigers of saadverspreiders geraadpleeg is nie.
- Moet nie **Unimoc EC** op swak gedreineerde grond of grond met 'n kompaksielaag toedien nie. ie onkruidodder mag tydens versuip-toestande skade aan gewasse veroorsaak.
- Moet nie **Unimoc EC** op enige gewas of situasie toedien wat nie op hierdie etiket verskyn nie.
- Dien **Unimoc EC** slegs met akkurate en veilige toedieningsmetodes toe.
- Swaar reën op sandgronde met 'n lae organiese materiaalinhoud sowel as vloedbesproeiing mag tot verminderde onkruidbeheer lei.
- Optimale onkruidbeheer word verkry op 'n fyn, gelyk saadbed wat vry van kluite, onkruid en plantreste is. **Unimoc EC** sal ook onkruidbeheer waar minimum- of deklaagbewerking toegepas word.
- Die volgende gewasse mag skade toon na 'n **Unimoc EC** toediening: Droëbone op lande waar monokultuur beoefen word en waar grondgedraagte siektes algemeen voorkom; droëbone en sonneblomme op vlak, sanderige, versuipde gronde met 'n ondergrondse kleilaag van vlakker as 1m. **Unimoc EC** skade op droëbone word soms met warm, droë toestande en 'n verdigingslaag in die grond geassosieer.
- Indien **Unimoc EC** met ander middels in tenkmengsels gebruik word, moet die gebruiksaanwysings van daardie betrokke produk gevolg word.
- Wanneer **Unimoc EC** op droëbone gebruik word, verseker dat die saad met geskikte swamdoders behandel is om saailingsiektes soos *Pythium spp.*, *Rhizoctonia spp.*, ens. te beheer.

GEBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

MENGINSTRUKSIES

Maak die spuitenk halfvol met skoon water en voeg die benodigde hoeveelheid **Unimoc EC** by terwyl water aanhoudend geroer word. Maak die spuitenk tot die finale volume vol. Roer goed, om vermenging te verseker, voordat die mengsel toegedien word. As tenkmengsels met ander middels gemaak word, moet die betrokke vervaardiger se etiket gevolg word. **Die tenkmengsel moet onmiddellik uitgespuit word en nie toegelaat word om oornag in die spuitenk te staan nie.** Die spuittoerusting moet aan die einde van toediening deeglik uitgewas word.

VERENIGBAARHEID

Die verenigbaarheid van **Unimoc EC** met ander produkte hang van die formulering van die betrokke produkte af, asook van die kwaliteit van die spuitwater. Deurdat formulering van tyd tot tyd verander, word dit aanbeveel om 'n fisiese verenigbaarheidstoets uit te voer voordat die tenkmengsel gemaak word. **Unimoc EC** is verenigbaar met **Equate SL** (L. 7158).

TOEDIENINGSMETODES

Maak seker dat die spuittoerusting korrek gekalibreer is en dit moet gereeld gedurende die toediening nagegaan word om seker te maak dat die toediening egalig en akkuraat is. Rugsakspuite of 'n konvensionele spuitbalk kan gebruik word. 'n Totale spuitvolume van 200 – 300 l/ha moet gebruik word en kan met platwaaier-spuitpunte toegedien word, verkieslik die lae-dryf tipe om fyn druppels te voorkom. Met lugtoediening, dien in 30 – 40 l spuitmengsel/ha toe. **Die mengsel moet aanhoudend en deeglik geroer word tydens toediening.** Gebruik net skoon water vir toediening.

Reënval kort na toediening is noodsaaklik om die onkruidodder in die bogrondlae in te loog waar die ontkiemende onkruid voorkom en daarvoor is 10 – 15 mm reën binne 7 dae na toediening nodig om optimale resultate te verseker. Onder droë toestande mag onkruidsaailinge opkom. Dié onkruid kan deur 'n vlakbewerking vernietig word wat terselfdertyd die onkruidodder met die boonste 10 – 20 mm grondlaag sal vermeng. Indien korsvorming 'n probleem word moet 'n roltandeg in dieselfde rigting as die plantrye gebruik word om die ontkieming van die mielies te bevorder. Skoffelbewerking na toediening mag onkruidbeheer benadeel as die onbehandelde grond in diep plantvore gegooi word.

Verseker dat voldoende kunsmis tydens plant naby die saad geplaas word om kragtige saailinggroei te bevorder.

Unimoc EC moet verkieslik met of net na plant toegedien word, maar nie later as drie dae na plant nie. Gebruik altyd die laer dosis op ligte gronde en waar onkruidruk laer is.

Grondtoediening:

Unimoc EC mag met enige behoorlike gekalibreerde medium- tot hoëvolume spuit toegedien word wat toegerus is met 'n goeie roermeganisme wat egalige bedekking sal verseker. 'n Totale spuitvolume van 200 – 300 l/ha moet gebruik word en kan toegedien word met platwaaierspuitpunte, verkieslik die lae-dryf tipe om fyn druppels te voorkom.

LUGTOEDIENING

Lugtoediening mag slegs deur 'n geregistreerde lugbespuitingsoperateur met 'n geregistreerde en korrek gekalibreerde vliegtuig volgens die instruksies van SANS Kode 10118 (Aerial Application of Agricultural Pesticides) 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. Die volgende kriteria moet nagekom word;

Toerusting

- Gebruik geskikte atomiseringsapparaat (hidroliese of roterende spuitkoppe) wat die vereiste druppelgrootte en bedekking van die teiken sal produseer, maar wat die minste verlies van produk deur wegdrywing sal verseker.
- Die operateur moet 'n spuitstelsel gebruik wat 'n druppelspektrum met die kleinste moontlike relatiewe span sal produseer.
- Al die spuitkoppe en atomiseerders moet in die binneste 75% van die vlerkspan geplaas word om die beweging van druppels binne-in die vlerkpuntvorteks te beperk.

Toedieningsvereistes

- 'n Minimum volume van 30 l spuitmengsel per ha word aanbeveel. Aangesien hierdie produk nie teen 'n verlaagde spuitvolume 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.
- Die hoogte van die spuitbalk moet tussen 3 en 4m bokant die teiken gehandhaaf word.
- Moet nie spuit wanneer die vliegtuig aan die bopunt van 'n draai is of tydens 'n duik of terwyl dit uitklim of draai nie.

Meteorologiese Toestande

- Die verskil tussen die nat- en droëbollesing, soos met 'n swaaihygrometer bepaal, moet nie 8 °C oorskry nie.
- Moenie tydens turbulente en onstabiele weerstoestande toedien of gedurende die hitte van die dag wanneer stygende en dalende lugbeweging plaasvind nie.
- Moenie onder temperatuurinversie-toestande (deur bokant of binne-in die inversielaag te spuit) toedien nie.
- Moenie spuit indien die windspoed 15 km per uur oorskry nie.

Algemeen

- Sorg dat die lande akkuraat gemerk is en dat die spuitoperateur presies weet watter lande gespuit moet word.
- Verkry 'n versekering van die spuitoperateur dat aan die bogenoemde vereistes voldoen sal word.

Vooropkoms toediening:

- 'n Minimum spuitvolume van 30 l/ha.
- 'n Minimum van 20 tot 30 druppels per cm² moet op die teikengebied herwin word.
- Gebruik 'n druppelspektrum met 'n VMD van 450 mikron. Verseker dat die produksie van fyn druppels (kleiner as 150 mikron met hoë wegdrywings- en verdampingspotensiaal) tot 'n minimum beperk word.

AANBEVELINGS

Unimoc EC as voor-opkomstoediening vir die beheer van eenjarige grasse en sommige breëblaaronkruid.

GEWAS	% KLEI	Unimoc EC (ℓ/ha)	TOEDIENING
Droëbone, sojabone, sonneblomme en grondbone	0 – 10	0.8 – 0.9	Dien op goed voorbereide saadbed na plant toe, maar vooropkoms van gewas of onkruid. Gebruik die hoër dosis vir verlengde en verbeterde beheer van breëblaaronkruid, kruisvingergras en geeluintjie. Gebruik die hoër dosis op gronde met > 1.0 % organiese materiaal.
	11 – 20	0.9 – 1.2	
	21 – 30	1.2 – 1.5	
	> 30	1.5 – 2.0	

- Gebruik die korrekte dosis vir verskillende ry- en baanwydtes.

Unimoc EC in tenkmengsel met Equate SL as voor-opkomstoediening vir die beheer van eenjarige grasse en breëblaaronkruid.

GEWAS	% KLEI	Unimoc EC (ℓ/ha)	Equate SL (mℓ/ha)	TOEDIENING
Droëbone, sojabone en grondbone	0 – 15	0.8	300	Dien op goed voorbereide saadbed na plant toe, maar vooropkoms van gewas of onkruid. Gebruik die hoër dosis vir verlengde en verbeterde beheer van breëblaaronkruid, kruisvingergras en geeluintjie. Gebruik die hoër dosis op gronde met > 1.0 % organiese materiaal.
	16 – 25	1.0	400	
	26 – 35	1.2	500	

- Gebruik die korrekte dosis vir verskillende ry- en baanwydtes.

Unimoc EC as voor-opkomstoediening vir die beheer van eenjarige grasse en sommige breëblaaronkruid in suikerriet.

GEWAS	% KLEI	Unimoc EC (ℓ/ha)	TOEDIENING
Plant en Ratoen Suikerriet	0 – 30	1.5 – 2.5	Dien op plant- of ratoensuikerriet voor opkoms van onkruid toe. Gebruik die hoër dosis op swaarder gronde en vir verbeterde beheer van <i>Panicum maximum</i> en <i>Cyperus esculentus</i> . Gebruik 3,0 ℓ/ha op gronde met meer as 35 % klei <u>en</u> met > 1,0 % organiese materiaalinhoud. Indien grasonkruid begin ontkiem het, voeg 1.5 ℓ/ha paraquat 200 SL by.
	> 30	2.5 – 3.0	

TENKMENGSELS

Vir addisionele voor-opkomsbeheer van breëblaaronkruid in suikerriet, voeg **Bastion SC** teen 2,0 – 3,0 ℓ/ha by **Unimoc EC** mengsel soos hierbo aangedui. Gebruik die laer dosis van **Bastion SC** op ligte tot medium gronde en die hoër dosis op medium tot swaar gronde.

ONKRUIDE WAT DEUR Unimoc EC BEHEER SAL WORD:

Grassoorte (vooropkoms)

Brachiaria eruciformis
Chloris virgata
Dactyloctenium aegyptium
Digitaria sanguinalis
Echinochloa crusgalli
Eleusine indica
Panicum maximum
Panicum schinzii

Litjiesinjalgras
 Witpluim-Chloris
 Hoenderspoor
 Kruisvingergras
 Hannepootmanna
 Jongosgras
 Gewone buffelsgras
 Soetbuffelsgras

Pseudobrachiaria deflexa
Setaria pallide-fusca
Setaria verticillata
Tragus berteronianus
Tragus racemosus
Urochloa mozambicensis
Urochloa panicoides

Bastersinjalgras
Rooiborselgras
Klitsborselgras
Kleinwortelsaadgras
Grootwortelsaadgras
Bosveldbeesgras
Beesgras

Wisselvallige beheer (vooropkoms)

Amaranthus hybridus
Amaranthus spinosus
Amaranthus thunbergii
Chenopodium carinatum
Cleome monophylla
Commelina benghalensis
Cyperus esculentus
Datura ferox
Datura stramonium
Galinsoga parviflora
Nicandra physaloides
Portulaca oleracea

Gewone misbredie
Doringmisbredie
Rooimisbredie
Groenhondebossie
Rusperbossie
Bengaalse wandelende Jood
Uintjie
Grootstinkblaar
Stinkblaar
Knopkruid
Basterappelliefie
Porslein

NOTAS:

Die wisselvallige beheer van onkruid soos bogenoem is afhangelend van omgewingstoestande. Die vooropkom beheer van *Cyperus esculentus* is afhangelend van die volgende:

- Waar 'n dosiskeuse gegee word, moet die hoër dosis gebruik word.
- Voor aanplanting plaasvind, moet die grond diep bewerk word en 'n fyn, gelyk saadbed moet geskep word.
- **Unimoc EC** moet binne 2 dae van die plantproses toegedien word.
- Genoeg aanhoudende reën of besproeiing (ten minste 15 mm op ligte gronde en 25 mm op swaar gronde) moet binne 7 dae van bespuiting val, sodat die onkruid doder tot in die ontkiemingsgebied geloog kan word.

Om die spektrum van breëblaaronkruidbeheer te verbeter, word aanbeveel om van óf tenkmengsels of van opvolgbespuitings van standaard geregistreerde breëblaaronkruid doders gebruik te maak. Dié onkruid doders moet volgens die vervaardiger se etiketvoorskrifte gebruik word en aanbevelings moet noukeurig gevolg word.

Die registrasiehouer neem geen verantwoordelikheid vir die beheer van onkruid wat nie gelys is nie.