



# EQUATE SL

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

**GEBRUIKSAANWYSINGS INGESLUIT**  
**VERWYS NA BESONDERHEDE**  
**SOOS OP HOUER / SAK GEDRUK**

Lotoonmer  
 Datum van vervaardiging

EQUATE SL

HERBICIDE

Reg. No. L7158, Act/Wet No. 36 of/van 1947

1: 16/09/2002

**A water soluble concentrate herbicide for control of annual broadleaf weeds in crops as indicated.**

**'n Wateroplosbare konsentraat onkruiddoder vir die beheer van breëblaaronkruid in gewasse soos aangedui.**

HRAC HERBICIDE GROUP CODE	B	HRAC ONKRUIDDODER GROEPKODE
ACTIVE INGREDIENT / AKTIEWE BESTANDEEL		
Imazethapyr (imidazolinone) 100 g/ℓ		Imasetapir (imidasolinoon)

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

10ℓ

UN Number: 2902

CAUTION / VERSIGTIG

**DIRECTIONS FOR USE ENCLOSED**  
**REFER TO DETAILS AS PRINTED**  
**ON CONTAINER / BAG**

Batch Number  
 Date of manufacture

## **WARNINGS**

- **Withholding periods:** (Minimum number of days between last application and harvest)  
Groundnuts, dry beans and soya beans.....85 days
- Handle with care.
- Harmful if swallowed.
- Causes mild skin and eye irritation.
- Store in a cool place.
- 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.

**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 herbicide 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 contact with eyes by wearing face shield and rubber gloves when mixing the product.
- Wash with soap and water after use and accidental skin contact as well as contaminated clothing.
- Wash contaminated clothing after use.
- 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.

## **RESISTANCE WARNING**

For resistance management, **Equate SL** is a group code B herbicide. Any weed population may contain individuals naturally resistant to **Equate SL** and other group code B herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **Equate SL** or any other group code B herbicide.

### **To delay herbicide resistance:**

- Avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or tank mix with registered products from different herbicide group codes.
- Integrate other control methods (chemical, cultural, biological) into weed control programmes.

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

The presence of resistant weeds is difficult to detect prior to use and therefore neither the Registration Holder nor the Distributor can accept responsibility for any losses as a result of **Equate SL** not controlling resistant weeds. Do not apply **Equate SL** alone in situations where weed resistance has been confirmed. Sub-standard application of **Equate SL** or other AHAS inhibitor herbicides will lead to inferior weed control and may assist in development of herbicide resistance.

For further advise on the prevention of resistance, contact your distributor.

## USE RESTRICTIONS

- Avoid application onto soils with a pH value (KCl) below 4,5.
- Do not apply any imidazolinone herbicide more than once onto the same land in any one season.
- Do not apply more than one imidazolinone herbicide on the same land in one season.
- Do not use the post emergent treatment on soils below 15% clay.
- Do not apply more than 700 mℓ / ha **Equate SL** on the same land per season.
- Do not apply to crops and weeds stressed by abnormal weather or growing conditions, drought, waterlogged soil, insect damage, nematode infections, diseases, nutritional deficiencies or crops under stress through prior use of other agrochemicals.
- Do not use **Equate SL** on crops which already show symptoms of soil borne diseases as the combination of disease and **Equate SL** application may result in stand loss.
- To avoid potential damage to follow-up crops, the waiting periods indicated below must be adhered to following application of **Equate SL**. A test planting is recommended in all cases.
- Do not use **Equate SL** on experimental or newly released cultivars/varieties without first consulting your supplier or the seed company concerned.
- Do not use **Equate SL** in crop situations which are interplanted with any other crops.
- The planting of follow-up crops should always be preceded by a deep ploughing.
- **Equate SL** should not be incorporated into the soil prior to planting.
- Do not apply **Equate SL** to any crop or situation not mentioned in this instruction leaflet.
- Only apply **Equate SL** using an accurate and safe application technique.
- If **Equate SL** is used in a tank mix with other recommended herbicides, consideration should be given to the restrictions of those respective products.
- Soybeans - do not apply the post-emergent treatment to PAN 717.
- If a deep cultivation is required to aerate the soil BEFORE the post-emergence application has been made, **Equate SL** can be applied immediately after this cultivation or any time up to 14 days after this cultivation, provided the crop has not started flowering. Further shallow cultivations may be carried out.

## Waiting periods

1. Dry beans, soya beans, groundnuts and 'imidazolinone tolerant' crops.....None
2. Wheat.....6 months
3. Any leguminous crop other than those mentioned in 1. above..... 10 months
4. **Maize** (all production areas (including irrigation).....20 months
5. Western Free State, western North-West Province and Northern Cape Province.....20 months
  - Where **Equate SL** was applied at standard rates for its particular soil type, the following semi-tolerant maize varieties may be planted after a 10 MONTH waiting period: CRN 3414, CRN 3505, CRN 3604, CRN 3631, CRN 3760, CRN 3891, CRN 4502, PAN 6146, PAN 6233, PAN 6364, LS 8503, PHB 30D05, PHB 30T43, PHB 3203, PHB 32K39, PHB 32K61, SC 707, SNK 2147, SNK 2401, SNK 2640, SNK 2776, SNK 2860, Goldfinger, Highflyer, Woodriver.
  - Where **Equate SL** was used at 450 – 500 mℓ/ha to control *Tribulus terrestris*, the following semi-tolerant maize varieties may be planted after a 10 MONTH waiting period: PHB 30H22, PHB 3394, PHB 35A19, CRN 3549.
1. All other crops (including popcorn and sweetcorn).....24 months

## IMPORTANT:

- The waiting periods for follow-up crops indicated above are only valid under normal environmental conditions, being at least 350 mm of well distributed rainfall and/or irrigation which will ensure a reasonable harvest following application of the recommended quantity of **Equate SL**.
- Where a higher dosage rate is recommended, such as for the control of *Tribulus terrestris*, longer soil persistence may be experienced, especially on lighter soils. In such cases, carry over to the following season is likely to be a problem. In areas of lighter soils and/or where less than 350 mm of rainfall has fallen, the waiting period will have to be extended by a further 12 months to 20 months, before planting an imidazolinone-sensitive follow-up crop. In the case of 'imidazolinone-tolerant' maize cultivars, the waiting period mentioned above will apply.
- A deep ploughing as well as a test planting is recommended in each case, prior to planting the follow-up crop. If there is any doubt, plant a yellow maize variety instead of a white maize variety.
- Under conditions of below average rainfall, especially where less than 350 mm of rain was experienced in the same season as the application of **Equate SL**, maize varieties which are sufficiently tolerant to imidazolinone herbicides should be planted as follow-up crops.

- 'Imidazolinone tolerant' crop varieties can be planted immediately in the same season, following application of **Equate SL**, eg. In cases of legume crop failure for whatever reason.

### General Remarks

- As a pre-emergent application, the active ingredient of **Equate SL** is absorbed by weed roots followed by translocation to the growing points. Certain weeds will germinate even after pre-emergent application of **Equate SL**, but susceptible species will soon show signs of poisoning and will stop growing. For absorption of **Equate SL** to take place, adequate soil moisture is essential. When adequate soil moisture is present, **Equate SL** should provide effective control of most susceptible weed species if applied correctly. To improve weed control, especially when insufficient rain has fallen, **Equate SL** (even in tank mixture with **Acetak EC** or **Unimoc EC**) can be lightly cultivated 3 – 5 cm into the soil.
- Temporary crop damage symptoms, namely chlorosis and/or internode shortening may occasionally occur following treatment with **Equate SL**. This is often more pronounced in crops growing under unfavourable or excessively hot conditions. This is transitory and should have no effect on yield and normal crop development should resume within 1 – 2 weeks.
- Heavy rain on light soils soon after application may cause excessive leaching of the product out of the germination zone of susceptible weeds, resulting in inadequate weed control.
- Situations with high soil organic matter or excessive dead plant material on the soil surface such as minimum tillage situations may reduce the length of residual control obtained.
- Reduced residual control of shallower germinating weeds may occur where application of **Equate SL** made on soils with low organic matter and/or clay content is followed by heavy rain or irrigation shortly after application.
- Under drier conditions, weeds may emerge and develop. These should be controlled with a shallow cultivation, which will also incorporate the herbicide into the upper soil layers.
- In lands of particularly high weed pressure, late season weed control may be unacceptable.
- Degree of pre-emergence weed control and duration of effect may vary, depending on weed species, environmental conditions and soil conditions.
- Ensure thorough coverage of weeds, especially when weed growth is very dense.

### DIRECTIONS FOR USE

**Use only as directed**

### MIXING INSTRUCTIONS

Half-fill the spray tank with suitable water, then add the required amount of **Equate SL** to the water in the tank while agitating. Fill the spray tank to the desired volume. Should tank mixtures with other agrochemicals 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. For post-emergence applications, the ammonium sulphate solution must be added first.

### COMPATIBILITY

The compatibility of **Equate SL** 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. **Equate SL** is compatible with **Acetak EC** (L. 6904), **Alachlor EC** (L. 7328), **Allgral 94** (L. 6543), **Hyper boost** (L. 7346), **Unimoc EC** (L. 7341).

### 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 and can be applied via flat fan-type nozzles, preferably the low drift type to avoid fine droplets. **Constant agitation throughout the spray operation is essential.** Only clean water should be used. Rain is essential to leach the product into the root zone of the germinating weeds and therefore 10 – 15 mm of rain or irrigation is needed within 7 – 10 days of application to ensure optimum results. Prevent overdosing by avoiding overlapping of swaths and closing the nozzles while starting, slow movement, turning and stopping.

## **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 50 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 aerially 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 50 l/ha.
- A minimum of 20 to 30 droplets per cm<sup>2</sup> 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**

<b>CROP</b>	<b>% CLAY</b>	<b>DOSAGE / ha</b>	<b>REMARKS</b>
<b>Dry beans</b> ( <i>Phaseolus vulgaris</i> and <i>Phaseolus</i> <i>coccineus</i> )	0 – 15	300 ml/ha	Apply in at least 200 – 300 l water/ha to a well prepared seedbed during or after planting but before weed and crop emergence. Do not apply <b>Equate SL</b> in combination with <b>Alachlor EC</b> on dry beans.
	16 – 25	400 ml/ha	
26 – 30	500 ml/ha		
<b>OR</b>			
	16 - 30	400 ml/ha followed by 300 ml/ha	For the follow-up post-emergent treatment, always add 200 ml Allgral 94 plus 2 l Hyperboost per 100 l spray mixture. Ensure adequate spray coverage. Aerial application not recommended for post-emergence application.

- For increased grass weed control, add a registered grass herbicide such as **Unimoc EC**.
- The follow-up treatment is to improve control of late-season broadleaf weeds such as *Tagetes minuta*.

- The follow-up treatment should be applied 2 – 3 weeks after the initial pre-emergence treatment of **Equate SL**.
- Apply the follow-up treatment to the following cultivars only: PAN 148, Kranskop, Sabie, Helderberg, Teebus, Kamberg.

CROP	% CLAY	Dosage / ha	REMARKS
Groundnuts	0 – 15	300 ml/ha	Apply in at least 200 – 300 l water/ha to a well prepared seedbed during or after planting but before weed emergence.
	16 – 25	400 ml/ha	
	26 – 30	500 ml/ha	
<b>OR</b>			
	16 - 30	700 ml/ha applied post-emergence	For the post-emergent treatment, always add 200 ml Allgral 94 plus 2 l Hyperboost per 100 l spray mixture. Ensure adequate spray coverage. Aerial application not recommended for post-emergence application.

- In the case of groundnuts apply **Equate SL** either pre-emergence OR post-emergence.
- Where *Tribulus terrestris* is a problem use 450 – 500 ml/ha.
- In all instances use a pre-emergent grass herbicide such as **Unimoc EC** or **Acetak EC** to control grass weeds.

CROP	% CLAY	Dosage / ha	REMARKS	
Soya beans	0 – 15	300 ml/ha	Apply in at least 200 – 300 l water/ha to a well prepared seedbed during or after planting but before weed emergence.	
	16 – 25	400 ml/ha		
	26 – 30	500 ml/ha		
	<b>OR</b>			
		16 - 30	400 ml/ha followed by 300 ml/ha	For the follow-up post-emergent treatment, always add 200 ml Allgral 94 plus 2 l Hyperboost per 100 l spray mixture. Ensure adequate spray coverage. Aerial application not recommended for post-emergence application.
<b>OR</b>				
	16 - 30	700 ml/ha applied post-emergence of crop and weeds	For post-emergent treatments, always add 200 ml Allgral 94 plus 2 l Hyperboost per 100 l spray mixture. Ensure adequate spray coverage. Aerial application not recommended for post-emergence application.	

- Do not use **Acetak EC** in combination with **Equate SL** on soya beans.
- It is preferable to apply a pre-emergent grass herbicide at planting, with or without **Equate SL**, to control grass weeds.
- Apply 700 ml/ha **Equate SL** in situations where it was not possible to apply the product pre-emergence. This treatment can be applied 14 – 24 days after the crop has been planted. At this stage most of the weeds will be in a suitable state (1 – 3 leaves) for adequate control.

#### **WEEDS CONTROLLED BY EQUATE SL:**

##### **Pre-emergence only**

*Acanthospermum hispidum*  
*Amaranthus deflexus*  
*Amaranthus hybridus*  
*Amaranthus thunbergii*  
*Chenopodium album*  
*Galinsoga parviflora*

Upright starbur  
 Perennial pigweed  
 Common pigweed  
 Red pigweed  
 White goosefoot  
 Gallant soldier

##### **Variable pre-emergence control only**

*Commelina benghalensis*  
*Cyperus esculentus*  
*Cyperus rotundus*  
*Datura ferox*  
*Datura stramonium*  
*Portulaca oleracea*

Benghal wandering Jew  
 Yellow nutsedge  
 Purple nutsedge  
 Large thorn apple  
 Thorn apple  
 Purslane

<i>Tagetes minuta</i>	Khaki weed
<i>Tribulus terrestris</i> *	Dubbeltjie
<i>Xanthium strumarium</i>	Cocklebur

\* Where *Tribulus terrestris* is a problem, a dosage rate of at least 450 ml/ha should be used irrespective of soil type. This should give at least 80 % control but may influence the waiting periods for follow-up crops.

**Weeds controlled by a post-emergence application following pre-emergence application of Equate SL plus a pre-emergent grass herbicide:**

<i>Acanthospermum australe</i>	8 seeded prostrate starburr
<b><i>Acanthospermum glabratum</i></b>	<b>5 seeded prostrate starburr</b>
<i>Acanthospermum hispidum</i>	Upright starbur
<i>Amaranthus deflexus</i>	Perennial pigweed
<i>Amaranthus hybridus</i>	Common pigweed
<i>Amaranthus thunbergii</i>	Red pigweed
<i>Chenopodium album</i>	White goosefoot
<i>Cleome monophylla</i>	Spindlepod
<i>Datura ferox</i>	Large thorn apple
<i>Datura stramonium</i>	Thorn apple
<i>Flaveria bidentis</i>	Smelter's bush
<i>Galinsoga parviflora</i>	Gallant Soldier
<i>Nicandra physaloides</i>	Apple of Peru
<b><i>Physalis angulata</i></b>	<b>Wild gooseberry</b>
* <i>Tagetes minuta</i>	Khaki weed
<i>Trumfetta annua</i>	Burs
<i>Xanthium strumarium</i>	Cocklebur

\* Only fully emerged weeds will be well controlled. Seedlings which emerge following application will not be fully controlled (70%).

For more detailed weed control lists in respect of recommended tank mixtures, please refer to the respective product label.

**ACKNOWLEDGEMENT OF TRADEMARKS:**

Acetak EC (L. 6904)	Meridian Agrochemical Company (Pty) Ltd.
Unimoc EC (L. 7341)	Meridian Agrochemical Company (Pty) Ltd.
Allgral 94 (L. 6543)	Hyper Agrochemicals (Pty) Ltd.
Hyperboost (L. 7346)	Hyper Agrochemicals (Pty) Ltd.

## **WAARSKUWINGS**

- **Onthoudingsperiodes:** (Minimum aantal dae tussen laaste toediening en oes)  
Grondbone, droë- en sojabone.....85 dae
- Hanteer versigtig.
- Giftig indien ingesluk.
- Berg in 'n koel plek.
- Bêre weg van voedsel, voer, kunsmis en ander landbouprodukte.
- Hou buite bereik van kinders, oningeligte persone en diere.

**Lugtoediening:** Stel die inwoners in die onmiddellike omgewing van die gebiede wat behandel gaan word in kennis en reik die nodige waarskuwings uit. Moet nie oor wateroppervlakte spuit nie en tref voorsorg dat die spuitnewel nie water of aangrensende gebiede besoedel 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 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 verantwoordelikheid vir skade aan gewasse, plantegroei en die omgewing of nadelige invloed 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.**

## **VOORSORGMATREËLS**

- Moet nie spuitnewel inasem nie.
- Vermoed kontak met die vel en oë deur 'n gesigskerm en rubberhandskoene te dra wanneer die produk gemeng word.
- Was met seep en water na gebruik en toevallige vel kontak.
- Was besoedelde klere na gebruik.
- Moet nie eet, drink of rook tydens vermenging of toediening van die produk of voordat hande en gesig gewas is nie.
- Verhoed wegdrywing van spuitnewel na ander gewasse, weiding, riviere, damme en plekke wat nie onder behandeling is 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.

## **WEERSTANDSWAARSKUWING**

Vir weerstandsbestuur is **Equate SL** 'n groepkode B onkruiddoder. Enige populasie van 'n spesifieke onkruid mag individueel insluit wat 'n natuurlike weerstand teen **Equate SL**, of enige ander groepkode B onkruiddoder het. Indien hierdie onkruiddoders herhaaldelik aangewend word, kan die weerstandbiedende individueel uiteindelik die onkruidpopulasie oorheers. Hierdie weerstandbiedende onkruid sal waarskynlik nie deur **Equate SL** of enige ander groepkode B onkruiddoder beheer word nie.

### **Om weerstand teen onkruiddoders te vertraag:**

- Vermoed die eksklusiewe herhaaldelike gebruik van onkruiddoders met dieselfde groepkode. Wissel af met, of gebruik tenkengsels van, produkte in verskillende onkruiddodergroepkodes.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in onkruidbeheerprogramme.

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



## GEBRUIKSBEPERKINGS

- Vermoed toediening van **Equate SL** op suurgronde met pH (KCl) onder 4,5.
- Moet nie enige imidasolinon onkruidodder meer as een keer op dieselfde land in een seisoen toedien nie.
- Moet nie meer as een imidasolinon onkruidodder op dieselfde land in een seisoen toedien nie.
- Moet nie die na-opkoms behandeling gebruik op gronde met minder as 15% klei nie.
- Moet nie meer as 700 ml/ha **Equate SL** op dieselfde land in een seisoen gebruik nie.
- **Equate SL** moet nie toegedien word op gewasse en onkruid onderhewig aan stremming as gevolg van abnormale weers- of groeitoestande, droogte, versuip-toestande, insek-skade, aalwurminfeksies, siektes, voedingstekorte of gewasse onder stremming as gevolg van die gebruik van ander landbouchemikalië nie.
- Om moontlike opvolggewasskade te vermy, moet die ondergenoemde wagperiodes gevolg word na toediening van **Equate SL**. 'n Toetsplanting word in alle gevalle aanbeveel.
- Moet nie **Equate SL** op eksperimentele of nuut vrygestelde kultivars gebruik alvorens die vervaardigers of saadverspreiders geraadpleeg is nie.
- Moet nie **Equate SL** toedien in gewassituasies waar enige ander gewasse tussen-in geplant is nie.
- Daar moet diep geploeg word voordat opvolggewasse geplant word.
- **Equate SL** moet nie voor plant in die grond ingewerk word nie.
- Moet nie **Equate SL** op enige gewas of toestand toedien wat nie op hierdie etiket verskyn nie.
- Dien **Equate SL** slegs met akkurate en veilige toedieningsmetodes toe.
- As **Equate SL** met ander middels in tenkmengsels gebruik word, moet die gebruiksaanwysings van die betrokke produkte gevolg word.
- Sojabone – moet nie die na-opkoms behandeling op PAN 717 toedien nie.
- Wanneer 'n diep tussen-ry skoffel benodig word om die grond te belug VOORDAT die na-opkomsbehandeling toegedien word, kan **Equate SL** onmiddellik na die bewerking toegedien word, of enige tyd binne 14 dae na bewerking, op voorwaarde dat die gewas nie begin blom het nie. Verdere tussen-ry skoffelbewerkings mag wel nog uitgevoer word.

### Wagperiodes

1. Droëbone, sojabone, grondbone en "imidasolinon verdraagsame gewasse" .....Geen
2. Koring.....6 maande
3. Enige peulgewas behalwe gewasse in 1. hierbo genoem.....10 maande
4. **Mielies** (alle produksie-areas (insluitend besproeiing)).....20 maande
5. Wes-Vrystaat, Noord-Wes Provinsie en Noord-Kaap Provinsie.....20 maande
- Waar **Equate SL** toegedien word teen standaard hoeveelhede vir die betrokke grontipe, kan die volgende semi-tolerante mielie-kultivars geplant word na 'n wagperiode van 10 maande: CRN 3414, CRN 3505, CRN 3604, CRN 3631, CRN 3760, CRN 3891, CRN 4502, PAN 6146, PAN 6233, PAN 6364, LS 8503, PHB 30D05, PHB 30T43, PHB 3203, PHB 32K39, PHB 32K61, SC 707, SNK 2147, SNK 2401, SNK 2640, SNK 2776, SNK 2860, Goldfinger, Highflyer, Woodriver.
- Waar **Equate SL** gebruik was teen 450 – 500 ml/ha om *Tribulus terrestris* te beheer, kan die volgende semi-tolerante mielie-kultivars geplant word na 'n wagperiode van 10 maande: PHB 30H22, PHB 3394, PHB 35A19, CRN 3549.
6. Alle ander gewasse (insluitend springmielies en groenmielies).....24 maande

### BELANGRIK:

- Die wagperiodes vir opvolggewasse soos hierbo aangedui is net geldig onder normale omgewigstoestande, d.w.s waar ten minste 350 mm goed verspreide reën en/of besproeiing voorgekom het wat 'n goeie oes sal verseker na die toediening van die aanbevole hoeveelheid **Equate SL**.
- Waar 'n hoër dosis aanbeveel is, soos vir die beheer van *Tribulus terrestris*, is langer nawerking moontlik op ligte gronde. In sulke gevalle, is oordrag na die volgende seisoen waarskynlik 'n probleem. In areas met ligte gronde en/of waar minder as 350 mm reën geval het, moet die wagperiode vir opvolggewasse met nog 12 maande tot 20 maande verleng word voor dit met 'n imidasolinon-sensitief opvolggewas geplant word. In die geval van 'imidasolinon-tolerante' mielie kultivars, kan die wagperiode soos hierbo genoem gebruik word.
- 'n Diep grondbewerking sowel as 'n toetsplanting word in alle gevalle aanbeveel, voordat die opvolggewas geplant word. Indien daar enige twyfel is, gebruik 'n geelmielie-kultivar in plaas van 'n witmielie-kultivar.
- By toestande waar minder as normale reënval voorgekom het, veral waar daar minder as 350 mm reën geval het in dieselfde seisoen as die **Equate SL** toediening, kan mielie-kultivars wat genoegsaam tolerant teen imidasolinon onkruidodders is, as opvolggewasse geplant word.

- 'Imidasolinoon tolerante' kultivars kan dadelik in dieselfde seisoen as die **Equate SL** toediening geplant word indien nodig, bv. in gevalle waar peulgewas-oeste vir welke rede ookal misluk het.

### Algemene opmerkings

- As vooropkomstoediening, word die aktiewe bestanddeel van **Equate SL** deur onkruidwortels geabsorbeer en deur translokasie na die groeipunte geneem. Somige onkruid sal ontkiem na die vooropkomstoediening van **Equate SL**, maar gevoelige spesies sal vinnig tekens van vergifting wys en sal ophou met groei. Grondvog is nodig vir die absorpsie van **Equate SL**. Wanneer voldoende grondvog beskikbaar is, sal **Equate SL** die meeste gevoelige onkruidspesies goed beheer indien die produk korrek toegedien is. Om onkruid beheer te verbeter, veral as daar nie genoeg reën geval het nie, kan **Equate SL** (selfs in tenkmengsel met **Acetak EC** of **Unimoc EC**) liggies met die boonste laag grond (3 – 5 cm) vermeng word.
- Simptome van tydelike gewasskade, naamlik chlorose en/of lootverkorting mag nou en dan voorkom na toediening van **Equate SL**. Dit is gewoonlik duidelik sigbaar in gewasse wat onder ongunstige of baie warm toestande groei. Dié effek is tydelik en daar sal geen/min uitwerking op opbrengs wees en normale gewasontwikkeling sal binne 1 – 2 weke hervat word.
- Swaar reën op ligte gronde kort na toediening kan tot oordrewe loging van die produk buite die ontkiemingsone lei, met gevolglike swakke onkruidbeheer.
- Moet nie **Equate SL** op gewasse toedien wat reeds simptome van grondgedraagte siektes vertoon nie, want die kombinasie van die siekte en die **EQUATE SL** toediening kan 'n oesverlies tot gevolg hê.
- Toestande waar hoë organiese grondstowwe of oormatige dooie plantmateriaal op die grondoppervlak soos byvoorbeeld by minimumbewerkingsituasies, mag die residuele (langtermyn) effek verminder.
- Verminderde residuele beheer van vlak ontkiemende onkruid kan voorkom waar **Equate SL** toegedien word op gronde met lae organiese materiaalinhoud en/of klei-inhoud, gevolg deur swaar reën of besproeiing kort na toediening.
- Onder droër toestande kan onkruid ontkiem en ontwikkel. Dié onkruid kan deur 'n vlak skoffelbewerking beheer word, wat ook die onkruiddoder met die boonste grondlaag sal vermeng.
- Op lande met hoë onkruiddruk, kan laatseisoen onkruidbeheer onaanvaarbaar wees.
- Die mate van vooropkoms onkruidbeheer en langtermyn effek kan wissel, afhangende van onkruidspesies, omgewings- en grondtoestande.
- Verseker deeglike bedekking van onkruid, veral wanneer onkruidgroei dig is.

## GEBRUIKSAANWYSINGS

**Gebruik slegs soos aangedui.**

## MENGINSTRUKSIES

Maak die spuitnek halfvol met geskikte water en voeg die benodigde hoeveelheid **Equate SL** by terwyl aanhoudend geroer word. Maak die spuitnek vol met water tot die finale volume. Roer goed om vermenging te verseker voordat die mengsel toegedien word. Indien tenkmengsels gemaak word met ander middels, moet die betrokke vervaardiger se etiketaanwysings gevolg word. **Die tenkmengsel moet onmiddellik uitgespuit word en nie toegelaat word om oornag in die spuitnek te staan nie.** Die spuittoerusting moet aan die einde van toediening deeglik skoongemaak word. Vir na-opkoms bespuitings, moet die ammoniumsulfaatoplossing eerstens in die tenk gegooi.

## VERENIGBAARHEID

Die verenigbaarheid van **Equate SL** met ander produkte hang van die formulering van die betrokke produkte af, asook van die kwaliteit van die spuitwater. Deurdadige formulering van tyd tot tyd verander word dit aanbeveel om 'n fisiese verenigbaarheidstoets uit te voer voordat die tenkmengsel aangemaak word. **Equate SL** is verenigbaar met **Acetak** (L. 6904), **Alachlor EC** (L.7328), **Allgral 94** (L. 6543), **Hyperboost** (L. 7346) en **Unimoc EC** (L. 7341).

## TOEDIENINGSMETODES

Maak seker dat die spuittoerusting korrek gekalibreer is en gereeld tydens toediening nagegaan word om te verseker dat die toediening egalig en akkuraat is. Rugsakspuite of 'n trekker met 'n konvensionele spuitbalk kan gebruik word. 'n Totale spuitvolume van 200 – 300 l/ha moet gebruik word en dit kan toegedien word met platwaaierpunte, verkieslik die lae dryf tipe om fyn druppels te voorkom. **Die mengsel moet aanhoudend en deeglik geroer word tydens toediening.** Gebruik slegs skoon water

vir toediening. Reënval kort na toediening is nodig om die onkruidodder in die bo-grondlaag in te loog waar die ontkiemende onkruid voorkom en daarvoor is 10 – 15 mm reën of besproeiing binne 7 – 10 dae na toediening nodig om optimale resultate te verseker. Voorkom oordodering deur oorvleueling van spuitbane te beperk, en deur die spuitpunte af te sluit wanneer die stelsel aangeskakel, stadig beweeg, gedraai of tot stilstand kom.

### **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 in te beperk.

#### **Toedieningsvereistes**

- 'n Minimum volume van 50 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 luginbeweging plaasvind nie.
- Moenie onder temperatuurinversie-toestande (deur bo 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 die spuitoperateur presies weet watter lande gespuit moet word.
- Verkry 'n versekering van die spuitoperateur dat aan die bogenoemde vereistes voldoen sal word.

Vooropkoms lugtoediening:

- 'n Minimum spuitvolume van 50 l /ha.
- 'n Minimum van 20 tot 30 druppels per cm<sup>2</sup> moet op die teikengebied herwin word.
- Gebruik 'n druppelspektrum met 'n VMD van 350-400 mikron. Verseker dat die produksie van fyn druppels (kleiner as 150 mikron met hoë wegdrywings- en verdampingspotensiaal) tot 'n minimum beperk word.

### **AANBEVELINGS**

<b>GEWAS</b>	<b>% KLEI</b>	<b>DOSIS / ha</b>	<b>OPMERKINGS</b>
	0 – 15 16 – 25 26 – 30	300 ml/ha 400 ml/ha 500 ml/ha	Dien toe in ten minste 200 – 300 l water/ha op 'n goed voorbereide saadbed gedurende of direk na plant maar voor die opkoms van gewas en onkruid. Moet nie <b>Equate SL</b> saam met <b>Alachlor EC</b> op droëbone spuit nie.
<b>OF</b>			

<b>Droëbone</b> ( <i>Phaseolus vulgaris</i> en <i>Phaseolus</i> <i>coccineus</i> )	16 - 30	400 ml/ha gevolg deur 300 ml/ha	Vir die opvolg na-opkoms toediening, voeg altyd 200 ml Allgral 94 plus 2 l Hyperboost per 100 l spuitmengsel by. Verseker deeglike bedekking. Lugtoediening word nie aanbeveel vir na-opkomtoediening nie.
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- Vir verbeterde grasbeheer, voeg 'n geregistreerde grasonkruiddoder soos **Unimoc EC** by.
- Die opvolgbehandeling word aanbeveel vir die verbeterde beheer van laatseisoen breëblaaronkruid soos *Tagetes minuta*.
- Die opvolgbespuiting moet toegedien word 2 – 3 weke na die oorspronklike vooropkoms behandeling van **Equate SL**.
- Dien die opvolgtoediening net op die volgende kultivars toe: PAN 148, Kranskop, Sabie, Helderberg, Teebus, Kamberg.

GEWAS	% KLEI	DOSIS / ha	OPMERKINGS
<b>Grondbone</b>	0 – 15	300 ml/ha	Dien toe in ten minste 200 – 300 l water/ha op 'n goed voorbereide saadbed gedurende of direk na plant maar voor die opkoms van die gewas en onkruid.
	16 – 25	400 ml/ha	
	26 – 30	500 ml/ha	
<b>OF</b>			
	16 - 30	700 ml/ha as na-opkoms toediening	Vir die opvolg na-opkoms toediening, voeg altyd 200 ml Allgral 94 plus 2 l Hyperboost per 100 l spuitmengsel by. Verseker deeglike bedekking. Lugtoediening word nie aanbeveel vir na-opkomtoediening nie.

- In die geval van grondbone dien **Equate SL** of voor-opkoms of na-opkoms toe.
- Waar *Tribulus terrestris* 'n probleem is, gebruik 450 – 500 ml/ha.
- In alle gevalle gebruik 'n vooropkoms grasonkruiddoder soos **Unimoc EC** of **Acetak EC** om grasonkruid vooropkoms te beheer.

GEWAS	% KLEI	DOSIS / ha	OPMERKINGS	
<b>Sojabone</b>	0 – 15	300 ml/ha	Dien toe in ten minste 200 – 300 l water/ha op 'n goed voorbereide saadbed gedurende of direk na plant maar voor die opkoms van die onkruid.	
	16 – 25	400 ml/ha		
	26 – 30	500 ml/ha		
	<b>OF</b>			
		16 - 30	400 ml/ha gevolg deur 300 ml/ha	Vir die opvolg na-opkoms toediening, voeg altyd 200 ml Allgral 94 plus 2 l Hyperboost per 100 l spuitmengsel by. Verseker deeglike bedekking. Lugtoediening word nie aanbeveel vir na-opkomtoediening nie.
<b>OF</b>				
	16 - 30	700 ml/ha as na-opkoms toediening van gewas en onkruid	Vir die opvolg na-opkoms toediening, voeg altyd 200 ml Allgral 94 plus 4 l Hyperboost per 100 l spuitmengsel by. Verseker deeglike bedekking. Lugtoediening word nie aanbeveel vir na-opkomtoediening nie.	

- Moet nie **Acetak EC** in kombinasie met **Equate SL** op sojabone toedien nie.
- Dit is verkieslik om 'n voor-opkoms grasonkruiddoder met plant toe te dien, met of sonder **Equate SL**, om grasonkruid te beheer.
- Dien 700 ml/ha **Equate SL** toe in situasies waar dit onmoontlik was om dit vooropkoms te spuit. Hierdie toediening moet gespuit word 14 – 24 dae na-plant. Onkruid sal waarskynlik in die geskikte groeistadium (1 – 3 blare) vir goeie beheer wees.

#### **ONKRUIDE WAT DEUR EQUATE SL BEHEER WORD:**

##### **Slegs voor-opkomsbeheer**

*Acanthospermum hispidum*  
*Amaranthus deflexus*  
*Amaranthus hybridus*  
*Amaranthus thunbergii*

Regop sterklits  
Meerjarige misbredie  
Gewone misbredie  
Roemisbredie

*Chenopodium album*  
*Galinsoga parviflora*

Withondebossie  
Knopkruid

### **Slegs wisselvallige voor-opkomsbeheer**

*Commelina benghalensis*  
*Cyperus esculentus*  
*Cyperus rotundus*  
*Datura ferox*  
*Datura stramonium*  
*Portulaca oleracea*  
*Tagetes minuta*  
*Tribulus terrestris\**  
*Xanthium strumarium*

Bengaalse wandelende Jood  
Geeluintjie  
Rooiuintjie  
Grootstinkblaar  
Stinkblaar  
Porslein  
Kakiebos  
Dubbeltjie  
Kankerroos

\* Waar *Tribulus terrestris* 'n probleem is, gebruik die dosis van 450 ml/ha ongeag die grondtipe. Dit behoort ten minste 80 % beheer te gee, maar kan die wagperiodes beïnvloed.

### **Onkruide wat beheer sal word deur 'n na-opkoms toediening na die voor-opkomsbespuiting van Equate SL plus 'n voor-opkomsgrasdoder:**

*Acanthospermum australe*  
***Acanthospermum glabratum***  
*Acanthospermum hispidum*  
*Amaranthus deflexus*  
*Amaranthus hybridus*  
*Amaranthus thunbergii*  
*Chenopodium album*  
*Cleome monophylla*  
*Datura ferox*  
*Datura stramonium*  
*Flaveria bidentis*  
*Galinsoga parviflora*  
*Nicandra physaloides*  
***Physalis angulata***  
*\*Tagetes minuta*  
*Trumfetta annua*  
*Xanthium strumarium*

8-sadige sterklits  
**5-sadige sterklits**  
Regopsterklits  
Meerjarige misbredie  
Gewone misbredie  
Rooimisbredie  
Withondebossie  
Rusperbossie  
Grootstinkblaar  
Stinkblaar  
Smeltersbos  
Knopkruid  
Basterappeliefie  
**Wilde appeliefie**  
Kakiebos  
Klitse  
Kankerroos

\* Net onkruide wat heeltemal opgekom het sal beheer word. Saailinge wat na die toediening opkom het, sal nie ten volle beheer word nie (70%).

Vir meer inligting oor onkruide wat beheer sal word deur aanbevole tenkmengsels, raadpleeg die betrokke etiket.

### **ERKENNING VAN HANDELSMERKE:**

Acetak EC (L. 6904)  
Unimoc EC (L. 7341)  
Allgral 94 (L. 6543)  
Hyperboost (L. 7346)

Meridian Agrochemical Company (Edms.) Bpk.  
Meridian Agrochemical Company (Edms.) Bpk.  
Hyper Agrochemicals (Edms.) Bpk.  
Hyper Agrochemicals (Edms.) Bpk.