



GROUP K₃ HERBICIDE

GROEP K₃ ONKRUIDDODER

SULTAN 50 SC

Reg. No. L 6892 Wet / Act 36 / 1947
N-AR 0912

A suspension concentrate herbicide for the pre-emergence control of annual grasses, certain broadleaf weeds and under favourable conditions yellow nutsedge in crops as indicated.

'n Suspensiekonsentraat vooropkom onkruidodder vir die beheer van eenjarige grasse, sekere breëblaaronkruiden en onder gunstige toestande geeluintjies in gewasse soos aangedui.

ACTIVE INGREDIENT: /
metazachlor (acetanilide) 500 g / ℓ

AKTIEWE BESTANDDEEL:
metazachlor (asetanilied)

NET VOLUME / NETTO VOLUME

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REGISTRATION HOLDER / REGISTRASIEHOUER:

MAKHTESHIM-AGAN SA (PTY) LTD
Reg. No. 92/01741/07
21 Viben Road, BRACKENFELL
PO box 498, BRACKENFELL 7561
Tel: (021) 982 1460
Fax: (021) 982 5810

Batch number Lotnommer
Date of Manufacture Datum van Vervaardiging



**CAUTION
VERSIGTIG**



GROUP III

Blue colour band

WAARSKUWINGS:

- Skadelik indien ingesluk, ingeasem of deur die vel geabsorbeer word.
- Irriterend vir die vel en mag oogirritasie veroorsaak.
- Giftig vir visse
- Berg in 'n koel, droë plek weg van voedsel, voer en ander landbouchemikalieë.
- Hou buite bereik van kinders, oningeligte persone en diere.

- **Algemene waarskuwing**

Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie aangesien die werking en effek daarvan beïnvloed word deur faktore soos abnormale grond-, klimaats- en bergingstoestande, kwaliteit van verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui is nie en die voorkoms van weerstand van onkruid teen die betrokke middel sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of vir nadelige effek op mens of dier of vir '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 geval van enige onsekerheid.

VOORSORGMAATREËLS:

- Moet nie eet, drink of rook terwyl die produk hanteer word nie.
- Vermy besoedeling van voedsel, voer, drinkwater en eetgerei.
- Dra rubberhandskoene en 'n gesigskerm wanneer die konsentraat hanteer word. Indien dit in u oë kom, spoel onmiddelik uit. Indien dit op u vel kom, was dit dadelik af. Indien dit op u klere mors, trek uit en was dit.
- Keer die leë houer om oor die spuit – of mengtenk en dreineer vir minstens 30 sekondes nadat die vloeitot 'n gedrup verminder het. Spoel die houer daarna driekeer uit met 'n volume water gelykstaande aan 'n minimum van 10 % van die inhoud van die houer. Gooi die spoelwater by die inhoud van die spuittenk voordat die houer vernietig word.
- Vermy kontak met die spuitstof sover as moontlik tydens toediening. Vermy oorwaai van die spuitnewel na ander gewasse, weiding, riviere of damme.
- Maak die toediener deeglik skoon na gebruik en gooi waswater waar dit nie gewasse, weiding, riviere of damme sal besoedel nie. Vernietig leë houer en moet dit nie vir enige ander doel gebruik nie. Trek werksklere uit en was dit. Was uself.

Gebruiksbeperkings:

Algemeen:

- SULTAN 50 SC mag gewasse waarop dit geregistreer is onder die volgende toestande beskadig:
- Toediening op swak gedreineerde gronde of gronde met 'n verdigtingslaag wat tot versuiptoestande mag lei.
- Langdurige nat, koue toestande of ander toestande wat die gewas onder stremming plaas.
- Ingeteelde ouerplante of nuutvrygestelde kultivars. Raadpleeg die verskaffer in hierdie verband.
- Indien SULTAN 50 SC in tenkmengsels met ander produkte gebruik word, moet hierdie produkte se etikette noukeurig bestudeer word en moet aan al die vereistes daarop voldoen word.

Gewasspesifieke voorwaardes:

- SULTAN 50 SC kan slegs vooropkom van onkruid toegeleen word in aartappels, droëbone, grondbone, kopkool, sojabone, spruitkool en tabak. Dit kan ook vooropkom en vroeg na-opkom toegeleen word in suikerriet en bosbou.

Droë- en sojabone:

- SULTAN 50 SC moet nie op gronde met minder as 15 % klei as 'n vooropkom enkel toediening in droë- en sojabone toegeleen word nie. As 'n splittoediening kan dit gebruik word as 'n na-opkom toediening in droëbone op gronde met meer as 10 % klei soos wat onder gebruiksaanwysings aangedui is.
- Siektevrye saad wat met 'n geskikte geregistreerde saadbehandelingsmiddel behandel is, moet geplant word. Landerye met 'n hoë voorkoms van grondgedraagde siektes moet vermy word.

Tabak:

- SULTAN 50 SC moet nie op gronde met minder as 15 % klei toegeleen word nie.
- Plant slegs sterk, aktiefgroeiende plantjies sonder enige siektes uit.
- Verseker dat die wortels van die uitgeplante tabakplantjies nie met die SULTAN 50 SC of grond wat daarmee behandel, in aanraking kom nie. Spesiale sorg moet gedra word dat die wortels van plantjies wat ingeboet word, nie met grond wat alreeds met SULTAN 50 SC behandel is in aanraking kom nie. Swaar reën na toediening in tabak wat in gruiserige grond geplant is, kan daartoe lei dat SULTAN 50 SC in die wortelsone geloog word en gewasskade mag veroorsaak.
- 'n Onbehandelde strook ongeveer 100 mm weerskante van die plantry moet op die rif gelaat word. Grasbeheer op die strook kan verkry word deur met 'n geregistreerde na-opkom grasdoder te behandel.

GEBRUIKSAANWYSINGS: Gebruik slegs soos aangedui.

Verenigbaarheid:

SULTAN 50 SC is verenigbaar met produkte soos AMETREX 500 SC (Reg no L4656), ATRANEX 500 SC (Reg no L5352), DIUREX 800 SC (Reg no L5334), GALIGAN 240 EC (Reg no L5782), SUPRANEX 600 SC (Reg no L5351), parakwat en piretroïedinsekdoders.

Dit is egter altyd raadsaam om 'n fisiese verenigbaarheidstoets uit te voer voor toediening.

Menginstruksies:

Skud die SULTAN 50 SC houër deeglik voor dit oopgemaak word. Maak die spuittenk halfvol met water en gooi die benodigde hoeveelheid SULTAN 50 SC in die spuittenk terwyl geroer word. Vul die spuittenk daarna met water. Tydens vermenging en toediening moet die spuitmengsel gedurig geroer word. Maak net genoeg spuitmengsel aan om dieselfde dag uit te spuit. Moet nie die spuitmengsel oornag in die tenk laat staan nie.

In geval van tenkmengsels soos in die toedieningstabelle aangedui, moet die ander produk eers in die tenk gevoeg word waarna die tenk tot amper vol gemaak word met water voordat die SULTAN 50 SC bygevoeg word.

Die enigste uitsondering is waar GALIGAN 240 EC in 'n tenkmengsel met SULTAN 50 SC gebruik word. Die SULTAN 50 SC word eers in die tenk gevoeg waarna die GALIGAN 240 EC laaste bygevoeg word.

Toediening:

SULTAN 50 SC kan met enige geskikte medium- of hoëvolume balkspuit toegerus met 'n doeltreffende roermeganisme, toegedien word. Die spuitapparaat moet korrek gekalibreer wees om ten minste 200 ℓ spuitmengsel / ha te kan lewer. Toediening moet verkieslik met plant of direk daarna maar definitief binne 5 dae na die laaste grondbewerking geskied. Die saadbed moet onkruidvry, fyn en ferm sonder oormatige plantreste wees.

Reën of besproeiing van ten minste 10 – 20 mm is nodig om die SULTAN 50 SC in die grond te loog voordat die onkruid begin ontkiem. Indien dit nie reën nie en onkruid begin ontkiem, kan 'n ligte grondbewerking van 10 – 20 mm diep uitgevoer word om die onkruid te vernietig en die middel in die grond in te werk.

Beheer van Geeluintjies (*Cyperus esculentus*):

Die beheer van geeluintjies kan verbeter word deur aan die volgende voorwaardes te voldoen:

- Die plantproses moet voorafgegaan word deur 'n diep ploegbewerking met 'n rysterplaatploeg.
- 'n Fyn, egalige, ferm saadbed moet voorberei word.
- Die onkruidodertoediening moet binne 7 – 10 dae gevolg word deur 10 – 20 mm deurdringende reën of besproeiing om die onkruiddoder in die grond in te loog voordat geeluintjies begin om te ontkiem.
- Geeluintjies en ander onkruid wat alreeds teenwoordig is tydens toediening, sal nie beheer word nie.
- Optimale beheer van geeluintjies word in die vroeë lente verkry.

TOEDIENINGSHOEVEELHEDE VAN SULTAN 50 SC

GEWAS	KLEI %	DOSIS (<i>ℓ</i> / ha)	OPMERKINGS
Aartappels	0 - 10 11 - 20 21 - 30 31 - 35 36 - 40	Enkeltoediening: 0,75 1,0 1,2 1,3 - 1,6 1,4 - 1,6	<p>Dien toe direk na plant of operd voor enige onkruide ontkiem het. Vir verbeterde beheer van breëblaaronkruide kan metribuzin 480 SC formulasies teen 1,1 <i>ℓ</i> / ha in 'n tenkmengsel met SULTAN 50 SC gebruik word. Die gebruiksbeperrings van metribuzin moet nagekom word.</p> <p>Gebruik die hoër toedieningshoeveelheid op swaarder grond vir verbeterde geeluintjie-beheer.</p> <p>Die eerste toediening word vooropkom toegedien soos beskryf by die enkeltoediening.</p> <p>Die tweede toediening word gedoen na die laaste operdbewerking vooropkom van onkruide en moet verkieslik as 'n gerigte bespuiting gedoen word om afskerming van die spuitmengsel deur die aartappelloof te verhoed.</p>
	0 - 10 11 - 20 21 - 30 31 - 35 36 - 40	Splittoediening: 0,45 + 0,30 0,60 + 0,40 0,75 + 0,45 0,85 + 0,60 1,0 + 0,60	
Droëbone	0 - 10 11 - 15 16 - 20 21 - 30 31 - 35 36 - 40 > 40	Enkeltoediening: Nie aanbeveel nie Nie aanbeveel nie 0,8 1,0 1,2 1,2 1,4	<p>Dit is belangrik om daarop te let dat SULTAN 50 SC nie op gronde met minder as 15 % klei as 'n enkel vooropkom toediening in droëbone aanbeveel word nie.</p> <p>Toediening moet geskied direk na plant en voordat die ontkiemende droëbone die grond kraak. Plant net kiemkragtige saad wat met 'n geregistreerde saadbehandelingsmiddel behandel is.</p> <p>Die eerste toediening by die splittoediening moet plaasvind soos by enkeltoediening beskryf. Die tweede toediening moet as 'n gerigte bespuiting na die laaste skoffelbewerking en vooropkom van onkruide toegedien word. Dit is belangrik om daarop te let dat 'n na-opkom toediening slegs by kleipersentasies 11 - 20 kan geskied.</p>
	0 - 10 11 - 20 21 - 30 31 - 35 36 - 40 > 40	Splittoediening: Nie aanbeveel nie 0 + 0,45 0,55 + 0,50 0,70 + 0,60 0,85 + 0,60 1,0 + 0,80	
Grondbone	0 - 10	0,75	Dien toe direk na plant en voor grondbone die

GEWAS	KLEI %	DOSIS (ℓ / ha)	OPMERKINGS
	11 – 20 21 – 30 31 – 35 36 - 40	1,0 1,2 1,3 – 1,6 1,4 – 1,6	grond kraak. SULTAN 50 SC moet nie na- opkom in grondbone toegedien word nie. Die hoër toedieningshoeveelhede op swaarder grond kan vir verbeterde geeluintjiebeheer gebruik word. Plant net kiemkragtige saad wat met 'n geregistreerde saadbehandelingsmiddel behandel is.

GEWAS	KLEI %	DOSIS (ℓ / ha)	OPMERKINGS
Kopkool	0 – 10 11 – 20 21 – 30 31 – 40 > 40	0,8 1,0 1,2 1,6 2,0	Dien as 'n algehele toediening, verkieslik direk, maar nie later as 5 dae, na uitplant op 'n onkruidvrye saadbed toe. Verseker dat slegs sterk, gesonde plantjies gebruik word.
Sojabone	0 – 10 11 – 15 16 – 20 21 – 30 31 – 40 > 40	Nie aanbeveel nie Nie aanbeveel nie 0,8 1,0 1,2 1,4	Dit is belangrik om daarop te let dat SULTAN 50 SC nie op gronde met minder as 15 % klei in sojabone aanbeveel word nie. Toediening moet geskied direk na plant en voor die ontkiemende sojabone die grond begin kraak. Plant net kiemkragtige saad wat met 'n geregistreerde saadbehandelingsmiddel behandel is.
Spruitkool (Broccoli)	0 – 10 11 – 20 21 – 30 31 – 40 > 40	0,8 1,0 1,2 1,6 2,0	Dien as 'n algehele toediening, verkieslik direk, maar nie later as 5 dae na uitplant, op 'n onkruidvrye saadbed toe. Verseker dat slegs sterk, gesonde plantjies gebruik word.
Tabak	0 – 10 11 – 15 16 – 20 21 – 30 31 – 35 36 – 40 > 40	Nie aanbeveel nie Nie aanbeveel nie 1,0 1,2 1,4 1,6 1,9	Dit is belangrik om daarop te let dat SULTAN 50 SC nie op gronde met minder as 15 % klei in tabak aanbeveel word nie. Let ook op na die voorwaardes vir tabak onder Gewasspesifieke Voorwaardes soos hierbo vermeld. Moet nie direk oor die uitgeplante tabakplantjies toedien nie.

**TOEDIENINGSHOEVEELHEDE VAN SULTAN 50 SC IN
TENKMENGSELS MET ANDER PRODUKTE.**

1. BOSBOU:

GEWAS	DOSIS (ℓ / ha)	OPMERKINGS

Uitgeplante <i>Eucalyptus</i>- en Denneboompies (<i>Pinus spp.</i>)	1,6 ℓ SULTAN 50 SC plus 2,0 ℓ GALIGAN 240 EC	Dien toe, verkieslik as ‘n gerigte bespuiting, vooropkom of vroeg na-opkom in uitgeplante <i>Eucalyptus</i> of denneboompies. Indien toediening vroeg na-opkom geskied, moet die onkruid jonk en aktiefgroeiend wees. Gevestigde onkruid sal nie beheer word nie. ‘n Mate van skroei mag voorkom wanneer die tenkmengsel oor <i>Eucalyptus</i> -boompies gespuit word. Hierdie simptome sal egter spoedig verdwyn en het geen invloed op die groei en ontwikkeling van die boompies nie.
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2. SUIKERRIET

Plant- of oorstaanriet	Produk- kombinasie	Klei %	Dosis (ℓ / ha)	Opmerkings
Plant- en oorstaanriet Vooropkom van onkruid	SULTAN 50 SC	11 – 35 > 35	1,5 2,0	SULTAN 50 SC of kombinasies daarvan moet nie op gronde met minder as 10 % klei gebruik word nie.
	SULTAN 50 SC + DIUREX 800 SC	11 – 35 > 35	1,5 + 3,0 2,0 + 3,0	Vir volle besonderhede oor DIUREX 800 SC, raadpleeg die etiket
	SULTAN 50 SC + ATRANEX 500 SC	11 – 35 > 35	1,5 + 2,0 2,0 + 3,0	Vir volle besonderhede oor ATRANEX 500 SC, raadpleeg die etiket.
Plant-en oorstaanriet Vroeg na- opkom van onkruid	SULTAN 50 SC + AMETREX 500 SC	11 – 35 > 35	1,5 + 3,0 – 6,0 2,0 + 3,0 – 6,0	Die toedieningshoeveelheid van AMERTREX 500 SC sal afhang van onkruidgrootte en onkruiddruk. Raadpleeg die AMERTREX 500 SC etiket vir volle besonderhede. ‘n Geskikte bevorderingsmiddel moet bygevoeg word om na-opkom werking te verbeter.
Slegs Planriet Vroeg na- opkom van onkruid	SULTAN 50 SC + AMETREX 500 SC + parakwat 200 SL	11 – 35 > 35	1,5 + 3,0 – 4,0 + 1,0 2,0 + 3,0 – 4,0 + 1,0	Die toedieningshoeveelheid van AMERTREX 500 SC sal afhang van onkruidgrootte en onkruiddruk. Raadpleeg die AMETREX 500 SC en parakwat etikette vir volle besonderhede. Hierdie toediening moet as ‘n gerigte tussenrybespuiting geskied, aangesien hierdie kombinasie ernstige nekrose op die suikerriet kan veroorsaak. ‘n Geskikte bevorderingsmiddel moet bygevoeg word.
	SULTAN 50 SC +DIUREX 800 SC + parakwat 200 SL	11 – 35 > 35	1,5 + 3,0 + 1,5 2,0 + 3,0 + 1,5	Lees die DIUREX 800 SC en parakwat etikette vir volle besonderhede. Hierdie

				toediening moet as 'n gerigte tussenrybespuiting geskied aangesien hierdie kombinasie ernstige nekrose op die suikerriet veroorsaak. 'n Geskikte bevorderingsmiddel moet gebruik word.
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ONKRUIDSPEKTRUM:

Die volgende onkruid word normaalweg deur SULTAN 50 SC beheer teen die toedieningshoeveelhede soos aangedui in die toedieningstabelle.

Grasonkruid:

Botaniese naam	Gewone naam
<i>Brachiaria eruciformis</i>	Litjiesinjaalgras
<i>Chloris virgata</i>	Witpluimchloris
<i>Digitaria sanguinalis</i>	Kruisvingergras
<i>Digitaria ciliaris</i>	Tropiese vingergras
<i>Eleusine indica</i>	Jongosgras
<i>Echinochloa crus-galli</i>	Hanepootmanna
<i>Lolium temulentum</i>	Drabok
<i>Panicum maximum</i>	Gewone buffelsgras
<i>Panicum shinzii</i>	Buffelsgras
<i>Setaria pallide-fusca</i>	Rooi borselgras
<i>Setaria verticillata</i>	Klitsborselgras
<i>Urochloa panicoides</i>	Beesgras

Breëblaaronkruid:

Botaniese naam	Gewone naam
<i>Amaranthus deflexus</i>	Meerjarige misbredie
<i>Amaranthus hybridus</i>	Kaapse misbredie
<i>Amaranthus spinosus</i>	Doringmisbredie
<i>Chenopodium album</i>	Withondebossie
<i>Chenopodium carinatum</i>	Groen hondebossie
<i>Galingsoga parviflora</i>	Knopkruid
<i>Nicandra physaloides</i>	Basterappelliefie
<i>Portulaca oleracea</i>	Porslein
<i>Richardia brasiliensis</i>	Meksikaanse Richardia
<i>Solanum nigrum</i>	Nastergal

Die volgende onkruid word net aanvanklik vroeg in die seisoen beheer:

Botaniese naam	Gewone naam

<i>Acanthospermum hispidum</i>	Regop sterklits
<i>Commelina benghalensis</i>	Bengaalse wandelende Jood
<i>Tagetes minuta</i>	Kakiebos

Die volgende onkruid word net onder optimum groeitoestande beheer.

Botaniese naam	Gewone naam
<i>Bidens pilosa</i>	Knapsekêrel
<i>Cyperus esculentus</i>	Geeluintjie
<i>Schkuhria pinnata</i>	Kleinkakiebos

NOTA:

Vir die beheer van addisionele onkruid deur SULTAN 50 SC in tenkmengsels met ander produkte, word u verwys na die onkruidspektrum van die spesifieke produk soos dit op die etiket aangedui word.

WARNINGS:

- Harmful if swallowed, inhaled or absorbed through the skin.
- Irritating to skin and may cause eye irritation.
- Toxic to fish.
- Store in a cool, dry place away from food, feed and other agricultural chemicals.
- Keep out of reach of children, uninformed persons and animals.

- **General warning**

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal soil, climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the weeds against the remedy concerned as well as 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 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 eat, drink or smoke while handling this product.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Wear rubber gloves and face shield when handling the concentrate. If you get it in your eyes, flush it out at once. If you get it on your skin, wash it off at once. If you spill it on your clothes, change and wash them.
- Invert the empty container over the spray tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water of at least 10 % of that of the container and add the rinsings to the content of the spray tank before destroying the empty container.
- While spraying, avoid contact with the spray as much as you can. Avoid spray drift onto other crops, grazing, rivers or dams.
- Clean applicator thoroughly after use and dispose of wash water where it will not contaminate crops, grazing, rivers or dams. Destroy empty container and do not use for any other purpose. Change and wash your work clothes. Wash yourself.

Use restrictions:**General:**

SULTAN 50 SC can damage crops on which it is registered under the following conditions:

- Application on poorly drained soils or soils with a compaction layer which may lead to water logging.
- Prolonged periods of cold, wet conditions or any other condition that put crop plants under stress.
- Inbred parent lines or newly released cultivars. Consult your supplier in case of any uncertainty.

- If SULTAN 50 SC is used in tank mixtures with other products, the labels of those products should be studied carefully and all the conditions as stated on those labels should be adhered to.

Crop specific conditions:

- SULTAN 50 SC can only be used pre-emergence of weeds in broccoli, cabbage, dry beans, groundnuts, potatoes, soybeans and tobacco.
In forestry and sugar-cane it can be used pre-emergence as well as early post-emergence.

Dry beans and Soybeans:

- SULTAN 50 SC must not be applied pre-emergence in dry beans and soybeans on soils with a clay percentage of less than 15 %. It can, however, be applied on dry beans as a post-emergence split application on soils with a clay percentage of more than 10 %. See directions for use for full details.
- Only disease free seed treated with a suitable registered seed treatment product, should be planted. Soils with high levels of soil borne diseases should be avoided.

Tobacco:

- SULTAN 50 SC must not be applied to soils with less than 15 % clay.
- Only strong, actively growing plants without any diseases should be transplanted.
- The roots of the transplants must not come into contact with SULTAN 50 SC or soil treated with it. Special care should be taken that the roots of young implants do not come into contact with treated soil.
- Heavy rain after application of SULTAN 50 SC in tobacco planted on gravelly soils may cause leaching of the chemical to the root zone which can lead to damage of the plants.
- An untreated strip, 100 mm on either side of the tobacco plants should be left on the ridge. A registered post-emergent graminicide can be used to control grasses on the untreated strip.

DIRECTIONS FOR USE: Use only as indicated

Compatibility:

SULTAN 50 SC is compatible with products such as AMETREX 500 SC (Reg no L4656), ATRANEX 500 SC (Reg no L5352), DIUREX 800 SC (Reg no L5334), GALIGAN 240 EC (Reg no L5782), SUPRANEX 600 SC (Reg no L5351), paraquat and the pyrethroid insecticides.

It is advisable, however, to do a compatibility test prior to application.

Mixing instructions:

Shake the SULTAN 50 SC container well before opening.

Half fill the spray tank with water and add the required volume of SULTAN 50 SC to the tank while agitating. Fill the spray tank with water. It is important that agitation is kept up during mixing and application. Prepare only sufficient spray mixture for immediate use. Do not keep spray mixture overnight.

When SULTAN 50 SC is used in a tank mixture with other products as indicated in the application tables, the other product must be added first. The spray tank is then filled to almost capacity before the SULTAN 50 SC is added to the spray tank.

The only exception is where SULTAN 50 SC is tank mixed with GALIGAN 240 EC where SULTAN 50 SC is added to the half filled spray tank first and the GALIGAN 240 EC is only added when the spray tank is almost filled with water.

Application

SULTAN 50 SC can be applied by means of any suitable medium to high volume boomspray fitted with an efficient agitation system. The sprayer must be correctly calibrated to deliver at least 200 ℓ spray mixture / ha. Application should be done preferably during plant or just after plant but definitely within 5 days after the last soil cultivation. The seedbed must be free of existing weeds, fine, firm and without excessive plant rests. Rain or irrigation of at least 10 – 20 mm is necessary to leach the SULTAN 50 SC into the soil before the weeds start to germinate. If it does not rain and weeds start to germinate, a shallow cultivation of 10 – 20 mm deep can be done to destroy the existing weeds and to incorporate the SULTAN 50 SC into the soil.

Control of Yellow nutsedge (*Cyperus esculentus*).

The control of yellow nutsedge can be improved by adhering to the following conditions:

- The plant process must be preceded by a deep cultivation with a mould board plough.
- An even, fine and firm seedbed must be prepared.
- Application of the herbicide should be done within 7 – 10 days followed by 10 – 20 mm rain or irrigation before germination of yellow nutsedge, to leach the herbicide into the soil.
- Yellow nutsedge and other weeds already present at time of application will not be controlled.
- SULTAN 50 SC should be applied during early spring for optimal control of yellow nutsedge.

APPLICATION RATES:

CROP	% CLAY	DOSAGE (ℓ / ha)	REMARKS
Broccoli	0 – 10	0,8	Apply overall, preferably immediately, but not later than 5 days after transplant on a weed free seedbed. Only strong, healthy plants should be planted.
	11 – 20	1,0	
	21 – 30	1,2	
	31 – 40	1,6	
	> 40	2,0	
Cabbage	0 – 10	0,8	Apply overall, preferably immediately, but not later than 5 days after transplant on a weed free seedbed. Only strong, healthy plants should be planted.
	11 – 20	1,0	
	21 – 30	1,2	
	31 – 40	1,6	
	> 40	2,0	

CROP	% CLAY	DOSAGE (ℓ / ha)	REMARKS
Dry beans	0 – 10 11 – 15 16 – 20 21 – 30 31 – 35 36 – 40 > 40	Single application: Not recommended Not recommended 0,8 1,0 1,2 1,2 1,4	It is important to note that SULTAN 50 SC is not recommended on soils with a clay content of less than 15 % as a single pre-emergence application in dry beans. Apply immediately after planting before the germinating beans crack the soil. Only viable seed treated with a registered seed treatment should be used. Apply the first split application as described above. Apply the second application as a directed spray after the last cultivation and pre-emergence of weeds. It is important to note that a post-emergence application can only be done at a soil clay percentage of 11 – 20.
	0 – 10 11 – 20 21 – 30 31 – 35 36 – 40 > 40	Split application: Not recommended 0 + 0,45 0,55 + 0,50 0,70 + 0,60 0,85 + 0,60 1,0 + 0,80	
Groundnuts	0 – 10 11 – 20 21 – 30 31 – 35 36 – 40	0,75 1,0 1,2 1,3 – 1,6 1,4 – 1,6	Apply directly after planting and before the groundnuts crack the soil. SULTAN 50 SC must not be applied post-emergence in groundnuts. Use the higher rates on heavier soils for improved control of yellow nutsedge. Use only viable seed that was treated with a registered seed treatment.
Potatoes	0 – 10 11 – 20 21 – 30 31 – 35 36 – 40	Single application: 0,75 1,0 1,2 1,3 – 1,6 1,4 – 1,6	Apply immediately after plant or after ridging before any weeds have germinated. For improved control of broadleaf weeds, metribuzin 480 SC formulations can be used at 1,1 ℓ / ha in a tank mix with SULTAN 50 SC. The use restrictions of metribuzin should be adhered to. Use the higher rates on heavier soils for improved control of yellow nutsedge. Apply the first application as described above. The second application should be done on a weed free surface after the last ridging operation, preferably as a directed spray to avoid the screening off of the spray by the foliage.
	0 – 10 11 – 20 21 – 30 31 – 35 36 – 40	Split application: 0,45 + 0,30 0,60 + 0,40 0,75 + 0,45 0,85 + 0,60 1,0 + 0,60	

CROP	% CLAY	DOSAGE (ℓ / ha)	REMARKS
Soybeans	0 – 10	Not	SULTAN 50 SC is not recommended on soils with a clay content of less than 15 %. Apply immediately after planting but before the soil is cracked by the soybeans. Only viable seed treated with a registered seed treatment should be planted.
	11 – 15	recommended	
	16 – 20	Not	
	21 – 30	recommended	
	31 – 40	0,8	
	> 40	1,0 1,2 1,4	

CROP	% CLAY	DOSAGE (ℓ / ha)	REMARKS
Tobacco	0 – 10	Not	SULTAN 50 SC is not recommended on soils with a clay content of less than 15 %. Note the conditions on tobacco as is described above under crops specific conditions. Do not apply directly over the transplants.
	11 – 15	recommended	
	16 – 20	Not	
	21 – 30	recommended	
	31 – 35	1,0	
	36 – 40	1,2	
	> 40	1,4 1,6 1,9	

APPLICATION RATES OF SULTAN 50 SC IN TANK MIXES WITH OTHER PRODUCTS

1. FORESTRY:

CROP	DOSAGE (ℓ / ha)	REMARKS
Transplanted <i>Eucalyptus</i> and Pine (<i>Pinus spp.</i>) trees.	1,6 ℓ SULTAN 50 SC plus 2,0 ℓ GALIGAN 240 EC.	Apply preferably as a directed spray, pre-emergence or early post-emergence to transplanted <i>Eucalyptus</i> or pine trees. When SULTAN 50 SC is used in a tank mix with GALIGAN 240 EC as an early post-emergence application, the weeds must be young and actively growing. Established weeds will not be controlled. Some scorch may occur on <i>Eucalyptus</i> if the spray mixture is sprayed directly over the trees. These symptoms will disappear soon and will have no effect on the growth and development of the trees.

2. SUGAR-CANE:

Plant or Ratoon cane	Product combinations	% Clay	Dosage (ℓ / ha)	Remarks
Plant and Ratoon cane Pre-emergence of weeds	SULTAN 50 SC	11 – 35 > 35	1,5 2,0	SULTAN 50 SC or combinations thereof is not recommended on soils with a clay content of less than 10 %.

	SULTAN 50 SC + DIUREX 800 SC	11 – 35 > 35	1,5 + 3,0 2,0 + 3,0	For full details on DIUREX 800 SC, consult the label.
	SULTAN 50 SC + ATRANEX 500 SC	11 – 35 > 35	1,5 + 2,0 2,0 + 3,0	For full details on ATRANEX 500 SC, consult the label.
Plant and Ratoon cane Early post-emergence of weeds	SULTAN 50 SC + AMETREX 500 SC	11 – 35 > 35	1,5 + 3,0 - 6,0 2,0 + 3,0 - 6,0	The application rate of AMERTEX 500 SC will depend on weed size and weed pressure. Consult the AMETREX 500 SC label for full details. To improve the post-emergence control, a suitable adjuvant should be added.
Plant cane only. Early post-emergence of weeds	SULTAN 50 SC +AMETREX 500 SC + paraquat 200 SL	11 – 35 > 35	1,5 + 3,0 - 4,0 + 1,0 2,0 + 3,0 - 4,0 + 1,0	The application rate of AMETREX 500 SC will depend on weed size and weed pressure. Consult the AMETREX 500 SC and paraquat labels for full details. Apply as a directed interrow application as this application can cause serious necrosis on sugar-cane. The addition of a suitable adjuvant is recommended.
	SULTAN 50 SC + DIUREX 800 SC + paraquat	11 – 35 > 35	1,5 + 3,0 + 1,5 2,0 + 3,0 + 1,5	Consult the DIUREX 800 SC and paraquat labels for full details. Apply as a directed interrow application as it can cause serious necrosis on sugar-cane. The addition of a suitable adjuvant is recommended.

WEED SPECTRUM:

The following weeds are normally controlled by SULTAN 50 SC at the rates as indicated in the application tables.

Grass weeds:

Botanical name	Common name
<i>Brachiaria eruciformis</i>	Sweet signal grass
<i>Chloris virgata</i>	Feathertop Chloris
<i>Digitaria sanguinalis</i>	Crab finger-grass
<i>Digitaria ciliaris</i>	Tropical finger-grass
<i>Eleusine indica</i>	Goose grass
<i>Echinochloa crus-galli</i>	Barnyard grass
<i>Lolium temulentum</i>	Darnel

<i>Panicum maximum</i>	Common buffalo grass
<i>Panicum shinzii</i>	Sweet buffalo grass
<i>Setaria pallide-fusca</i>	Red bristle grass
<i>Setaria verticillata</i>	Stickey bristle grass
<i>Urochloa panicoides</i>	Herringbone grass

Broadleaf weeds:

Botanical name	Common name
<i>Amaranthus deflexus</i>	Perennial pigweed
<i>Amaranthus hybridus</i>	Cape pigweed
<i>Amaranthus spinosus</i>	Thorny pigweed
<i>Chenopodium album</i>	White goosefoot
<i>Chenopodium carinatum</i>	Green goosefoot
<i>Galinsoga parviflora</i>	Gallant soldier
<i>Nicandra physaloides</i>	Apple-of-Peru
<i>Portulaca oleracea</i>	Purslane
<i>Richardia brasiliensis</i>	Tropical Richardia
<i>Solanum nigrum</i>	Deadly nightshade

The following weeds are controlled initially early in the season

Botanical name	Common name
<i>Acanthospermum hispidum</i>	Upright starbur
<i>Commelina benghalensis</i>	Bengal wandering Jew
<i>Tagetes minuta</i>	Khaki weed

The following weeds will only be controlled under optimum conditions.

Botanical name	Common name
<i>Bidens pilosa</i>	Spanish black jack
<i>Cyperus esculentus</i>	Yellow nutsedge
<i>Schkuhria pinnata</i>	Dwarf marigold

NOTE:

For the control of additional weeds where SULTAN 50 SC is tank mixed with other products, please refer to the weed spectrum on the label of the specific product.