NOCTUS 540 EC

HERBICIDE

An emusifiable concentrate selective, systemic emergence herbicide for the control of annual grasses in crops as indicated.

HRAC HERBICIDE GROUP CODE A

Active ingredient

Haloxyfop-P-methyl ester/ (pyridinyl-oxyphenoxy compound) ..... 540 g/ℓ

Reg. No. L0000, Act/Wet No. 36 Of/Van 1947

REGISTRATION HOLDER:
DVA Chemicals South Africa Pty Ltd Ltd / (Edms) bpk
Reg. No. 2006/000931/07
PO Box / Posbus 26, Hartenbos, 6520
South Africa / Suid Afrika

WARNINGS
Withholding period - Minimum number of days between last application and harvest or grazing.

Soya beans	60 days
Sugarcane	28 days
All other crops	40 days

- Harmful by swallowing.
- Concentrate may cause irritation to eyes and skin.
- Toxic to fish.
- Flammable - store in a cool place.
- Store away from food, feed, seed, other agricultural chemicals and out of reach of children, uninformed persons and animals.

RE-ENTRY INTERVAL: Do not enter treated area until spray deposit has dried unless wearing protective clothing.
AERIAL APPLICATION: Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water or adjacent areas.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that is will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal climatic and storage conditions; quality of dilution water; compatibility with other substances not indicated on the label and the occurrence of resistance of the disease against the remedy concerned as well as by the method, time and accuracy of 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 use 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
- Wear protective gloves and eye protection when handling the concentrate.
- Do not breathe fumes or spray mist.
- Wash contaminated clothing daily.
- Wash immediately with soap and water after accidental skin contact. Avoid eye contact.
- In case of eye contact, flush eyes with clean water.
- Do not eat, drink or smoke whilst applying, mixing or before washing hands and face and change of clothing.
- Prevent drift onto other crops, grazing, rivers, dams or areas not under treatment.
- Clean applicator before using with other material - dispose of wash water where it will not contaminate food, grazing, rivers or dams.
- Rinse empty container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsings to the contents of the spray tank before destroying the container by perforation and flattening and NEVER use for any other purpose. Prevent contamination of food, feed, drinking water and eating utensils.

RESISTANCE PREVENTION AND MANAGEMENT
For resistance management, **NOCTUS 540 EC** is a group code A herbicide. Any weed population may contain individuals naturally resistant to **NOCTUS 540 EC** and other group code A herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by **NOCTUS 540 EC** or any other group code A 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 NOCTUS 540 EC not controlling resistant weeds.
Do not apply **NOCTUS 540 EC** alone in situations where weed resistance has been confirmed. Sub-standard application of **NOCTUS 540 EC** or other acetyl CoA carboxylase inhibitor herbicides will lead to inferior weed control and may assist in development of herbicide resistance

USE RESTRICTIONS
A. **NOCTUS 540 EC** breaks down quickly in the soil and should not pose a threat to follow-up crops but maize, sorghum, wheat or any other grass crop should not be planted on treated soil for a period of 3 months after application in the case of a failed broadleaf crop.
B. Rain or irrigation within 1 hour of **NOCTUS 540 EC** application may result in reduced efficacy on emerged weeds necessitating a follow-up spray.
C. 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.
D. Do not use **NOCTUS 540 EC** on crops which already show symptoms of soil borne diseases as the combination of disease and **NOCTUS 540 EC** application may result in stand loss.
E. Temporary chlorotic spots may occasionally appear on crop leaves, especially if application is followed by very cold/unseasonal weather conditions. Under favourable growing conditions, the crop will recover quickly and yield and quality should not be affected.
F. Do not apply **NOCTUS 540 EC** to any crop or situation not mentioned in this instruction leaflet.
G. Only apply **NOCTUS 540 EC** using an accurate and safe application technique.
H. The crop may be treated at any time when the weeds are in the correct stage, providing that the withholding periods are adhered to.
I. Grass weeds must be actively growing and not under drought stress during application as this can limit uptake and translocation. For annual grasses best results are obtained when they are at the 2 - 6 leaf stage while with Paspalum spp. best results are obtained when application is made at the early flowering stage.
J. Do not apply by aerial application if the neighbouring crops are grain crops or grass pastures.
K. Allow an interval of at least 14 days between application of **NOCTUS 540 EC** and any other herbicide.

DIRECTIONS FOR USE - Use only as directed.

MIXING INSTRUCTIONS
- Half-fill the spray tank with suitable water. **NOCTUS 540 EC** is most effective when spray water is buffered to a pH of 4.5 – 5.5. The volume of buffer used must be included in the total water volume prior to adding the **NOCTUS 540 EC.**
- Then add the required volume of **NOCTUS 540 EC** to the water in the tank while agitating followed by the required quantity of adjuvant..
- Fill the spray tank to the desired volume. Agitate the mixture to ensure good mixing prior to application.
- 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.

COMPATIBILITY
The compatibility of **NOCTUS 540 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.

NOTE:
pH of Spray Water
The efficacy of **NOCTUS 540 EC** may be reduced by very hard water (> 1000 p.p.m.slutes) and by water with a high pH value.
When **NOCTUS 540 EC** is used, the optimal efficacy thereof will be obtained in water of pH 4,5 - 5,5. Water of a higher or lower pH than 4,5 - 5,5 should be buffered to pH 4,5 - 5,5.

FOLLOW-UP CROPS
Maize, sorghum, wheat or any other grass crop should not be planted on treated soil for a period of 3 months after application in the case of a failed broadleaf crop.

STAGE OF APPLICATION
Crop
The crop may be treated at any time when the weeds are in the correct stage, providing that the withholding periods are adhered to.
If the crop shields the weeds drop-arms must be used to ensure adequate coverage of the weeds or else poor weed control may possibly be obtained.
Weeds
Weeds which have not germinated at the time of application will not be controlled.
Grass weeds must be actively growing and not under drought stress during application as this can limit uptake and translocation.
For annual grasses best results are obtained when they are at the 2 - 6 leaf stage while with Paspalum spp. best results are obtained when application is made at the early flowering stage.
Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.
Rain or irrigation within one hour after application of **NOCTUS 540 EC** may necessitate a second spray.
Although the observable effect of spraying may not be seen for up to 2 - 3 weeks after spraying, **NOCTUS 540 EC** does cause immediate cessation of cell division in the plant and therefore growth.

APPLICATION EQUIPMENT
Ensure that the equipment is correctly calibrated and is checked regularly during application to ensure even and accurate application.
Ground 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 3 nozzle boom (flat fan nozzles 40cm apart). Constant agitation throughout the spray operation is essential. Only clean water should be used. Prevent overdosing by avoiding overlapping of swaths and closing the nozzles while starting, slow movement, turning and stopping.

AERIAL APPLICATION
Aerial application of **NOCTUS 540 EC** 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 Pesticides). Ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met;
The use of a suitable drift retardant adjuvant and / or low drift nozzles e.g. straight stream nozzles) is recommended. In the case of fixed-wing aircraft flying at a speed faster than 130 mph, the maximum deflection angle of the nozzles or spray stream, as measured from a horizontal straight backwards orientation, may not exceed 30 degrees. In the case of slower flying fixed wing aircraft the maximum deflection angle, as described above, may not exceed 55 degrees.
Volume: A spray mixture volume of 30 to 50 l per hectare is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
Droplet coverage: 30 to 40 droplets per cm² must be recovered at the target area.
Droplet size: A droplet spectrum with a VMD of 300 to 350 microns is recommended.
Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
Flying height: Maintain the height of the spray boom at 3 to 4 metres above the target.
Do not spray when aircraft dives, is in a climb or when banking.
Use suitable atomizing equipment that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
The use of a registered drift retardant and / or low drift aerial spraying nozzle (e.g. straight stream nozzle) is recommended.
Position all the atomizers within the inner 60 to 75 % of the wingspan to prevent droplets from entering the wingtip vortices.
The difference in temperature between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8 °C.
Stop spraying if the wind speed exceeds 15 km/h.
Stop spraying under turbulent, unstable and dry conditions during the heat of the day, Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following: reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage), damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field
Ensure that the Aerial Spray Operator knows exactly which fields to spray.
Obtain an assurance from the Aerial Spray Operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

CROPS (SEE NOTE 1 BELOW):

CROP	WEED SPECIES	COMMON NAME	RATE OF NOCTUS 540 EC PER HECTARE
Deciduous fruit (apples, apricots, nectarines, peaches, pears, plums)	*Avena fatua*	Common wild oats	0.1
	Bromus diandrus	Ripgut brome	0.1
Forestry (Eucalyptus, pines,wattle)	*Bromus japonicus*	Brome grass	0.1
	Digitaria sanguinalis	Crab fingergrass	0.1
Grapes	*Eleusine indica*	Goose grass	0.1
	Echinochloa colona	Marsh grass	0.1
Vegetables (beetroot, carrots, green beans, onions, peas, potatoes, tomatoes)	*Lolium temulentum*	Ryegrass / Darnel	0.1
	Phalaris canariensis	Canary grass	0.1
Canola	*Urochloa panicoides*	Herringbone grass	0.1
	Panicum schinzii	Sweet buffalo grass	0.15
Sunflowers	*Zea mays*	Volunteer maize	0.15
	Panicum maximum	Common buffalo grass	0.2
	Triticum aestivum	Volunteer wheat	0.2
	Paspalum dilatatum	Common paspalum	0.3
	Paspalum paspaloides	Couch paspalum	0.3
	Paspalum urvillei	Tall paspalum	0.3
	Setaria megaphylla	Broad-leaved setaria/ Bush buffalo grass	0.8

NOTE 1: Do not apply **NOCTUS 540 EC** in nurseries nor to or over nursery plant material.
Regrowth may occur on well established Paspalum spp. and Setaria megaphylla which will require a follow-up application in the following season.
The product controls annual grasses. Other annual grasses that were not present during the development trials with the product, may possibly also be controlled to a certain degree. The registration holder does not accept any responsibility for unlisted weeds.

REMARKS
Do not mix with other chemicals. It is not necessary to add a wetter. Apply in 200 - 300 litres of water per hectare. For best results apply to annual grasses from early post-emergence to the 6-leaf stage and for Paspalum spp. at the early flowering stage.

SUGARCANE RIPENING
GENERAL
NOCTUS 540 EC will stunt or kill young leaves and may also kill the growing point after application. Stalk growth is restricted, and immature tops may eventually break off. This will not cause a reduction in sucrose yield, compared to the untreated crop as long as the recommended period between spraying and harvesting is not exceeded. Higher rates will exaggerate the severity of ripening symptoms.

VARIETIES
NCo 376, N 12, N 19 and N 14. Other varieties may well respond but to date have not been evaluated.

TIMING
Early Season (Late Summer - Autumn)

Apply **NOCTUS 540 EC** 4 - 10 weeks before harvest. Do not apply after May. When crop growth is rapid the time between spraying and harvesting will be shorter than when conditions are cooler and growth is slower. The crop must be growing actively when sprayed, ie not suffering from nutrient, moisture or any other stress factors.

SUGARCANE	DOSAGE/HA	REMARKS
VARIETIES NCo 376 N 12 N 19	30 ml	Ground applications Apply by knapsack with overhead boom in 50 - 200litres water/ha.
N 14	40 ml	
NCo 376 N 12 N 19	33 ml	Aerial application Apply by aircraft in 30 - 35 litres per ha.
N 14	40 ml	

Batch No.
Date of manufacture.

NOCTUS 540 EC

HERBICIDE

'n Emulgeerbare konsentraat sistemiese, post-na-opkoms onkruiddoder vir die beheer van eenjarige grasse in gewasse soos aangedui.

HRAC ONKRUIDDODER GROEPKODE A

Aktiewe bestanddeel

Haloksifop-P-metielester (piridiniel-oksifenoksieverbinding) ..... 540 g/ℓ

Reg. No. L0000, Act/Wet No. 36 Of/Van 1947

REGISTRASIEHOUER:
DVA Chemicals South Africa Pty Ltd Ltd / (Edms) bp
Reg. No. 2006/000931/07
PO Box / Posbus 26, Hartenbos, 6520
South Africa / Suid Afrika

WAARSKUWINGS
ONTHOUDINGSPERIODES:

Minimum tyd wat moet verstryk tussen die toediening en oes of voer/beweiding.

Droëbone/Sojabone	60 dae
Lusern/Medics weidings/Suikerriet	28 dae
Alle ander gewasse	40 dae

- Skadelik indien ingesluk word.
- Konsentraat mag irritasie van oë en vel veroorsaak.
- Giftig vir visse.
- Vlambaar - bêre in 'n koel plek
- Berg weg van voedsel, oer, saad en ander landboumiddels.
- Hou buite bereik van kinders, oningeligte persone en diere.

HERBETREDING:
Moet nie behandelde gebied betree alvorens die spuitneerslag droog is nie, tensy beskermde klere gedra word.

LUGBESPUITING:
Stel die inwoners van die onmiddellike omgewing van die gebied wat gespuit moet word in kennis en reik die nodige waarskuwings uit. Moet nie oor water of aangrensende gebiede spuit of toelaat dat die spuitnewel daarheen oorwaai 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, aangesien die werking en effek daarvan beïnvloed kan word deur faktore soos abnormale klimaats- en bergingstoestande; kwaliteit van verdunningswater; verenigbaarheid met ander stowwe wat nie op die etiket aangedui is nie en die voorkoms van weerstand van die siekte teen die betrokke middel sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of vir nadelige effek op mens of dier of vir 'n gebrek aan prestasie van die betrokke middel as gevolg van die versuim van die gebruiker om etiketaanwysings na te kom of as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kon word nie. Raadpleeg die verskaffer in die geval van enige onsekerheid.

VOORSORGMAATREËLS
- Dra beskermende handskoene en oogbeskerming wanneer die konsentraat hanteer word.
- Moenie dampe of spuitnewel inasem nie.
- Was besoedelde klere daagliks.
- Was onmiddellik met seep en water indien per ongeluk met die vel in aanraking kom.
- Vermy aanraking met die oë. In geval van oogkontak, spoel oë met skoon water.
- Moenie eet, drink of rook tydens vermenging en toediening en alvorens hande en gesig gewas en skoon klere aangetrek is nie.
- Verhoed spuitstofwegdrywing na ander gewasse, weidings, riviere, damme of enige gebied wat nie behandel word nie.
- Spuittoerusting wat gebruik word moet deeglik skoongemaak word voor toediening van ander middels. Gooi was- en spuitwater uit waar dit nie gewasse, weiding, riviere en damme sal besoedel nie.
- Spoel leë houer drie keer uit met 'n volume water gelykstaande aan 'n minimum van 10 % van die houer. Gooi die spoelwater by die inhoud van die spuittenk voordat die houer vernietig word deur gate daarin te maak en dit plat te druk en moet nie vir enige ander doel gebruik nie.
- Voorkom besoedeling van voedsel, voer, drinkwater en eetgerei.

WEERSTAND VOORKOMING EN BESTUUR
NOCTUS 540 EC is deel van die piridinil-oksifenoksie groep van onkruiddoders wat die inhibering van asetiel ko-ensiem A (asetiel-KoA) karboksilase as metode van werking het.

Sommige onkruidbiotipes wat in die natuur voorkom mag weerstandbiedendheid toon teen **NOCTUS 540 EC**, asook ander onkruiddoders wat asetiel Ko-ensiem A karboksilase inhibeer, weens natuurlike genetiese variasie in enige onkruidpopulasie. Hierdie weerstandbiedende individue kan uiteindelik die onkruidpopulasie domineer indien dieselfde onkruiddoders herhaaldelik gebruik word. Hierdie weerstandbiedende onkruide sal nie deur NOCTUS 540 EC of ander inhibeerders van asetiel Ko-ensiem A karboksilase beheer word nie.

BESTUURSAKSIES OM SELEKSIE VAN WEERSTANDBIEDENDE ONKRUIDE TE VERMINDER
- Implementeer bewerkingspraktyke, wisselboustelsels of ander meganiese beheerstelsels (insluitende die gebruik van nie-selektiewe onkruiddoders) waar prakties moontlik.
- Vermy die herhaalde gebruik van onkruiddoders met dieselfde metode van werking.
- Beplan gewasrotasie sodat onkruiddoders met verskillende metodes van werking gebruik word.
- Hou rekord van onkruiddodergebruik van elke land.
- Voorkom die verspreiding van weerstandbiedende saad asook vegetatiewe materiaal na ander lande deur gereelde skoonmaak van stropers en ploeë en plant van onkruidvrye saad.
- Met beweiding, begin by lande met die minste onkruidweerstand voor beweging na lande met hoë weerstand om verspreiding van saad deur diere te verhoed.
- Ondersoek alle lande jaarliks om moontlike weerstand vroegtydig te identifiseer.

Kontak u **DVA** verteenwoordiger vir verdere advies rakende die voorkoming van onkruiddoder weerstandbiedendheid.

GEBRUIKSAANWYSINGS - Gebruik slegs soos aangedui
Die mengbaarheid van **NOCTUS 540 EC** is ôf nie bekend nie, ôf het 'n nadelige invloed op effektiwiteit.
Waar twee onkruiddoders aangewend moet word, moet hulle apart toegedien word met ten minste 'n 14 dae periode tussen die twee toedienings.

VERMENGING:
Maak die spuittenk halfvol met skoon water. Voeg die benodigde hoeveelheid **NOCTUS 540 EC** by. Roer die spuitmengsel in die tenk terwyl die water tot die verlangde volume gevul word. Die byvoeging van 'n benatter is nie nodig nie. Die spuitmengsel moet tydens toediening voortdurend in roering gehou word. Aangemaakte spuitmengsels moet nie in die spuittenk gelaat word vir 'n onbepaalde tyd nie, bv. oornag.

NOTA:
pH van Verdunningswater
NOCTUS 540 EC se doeltreffendheid kan benadeel word deur baie harde water (> 1,000 d.p.m. opgeloste stowwe) en deur water met 'n hoë pH-waarde. Wanneer **NOCTUS 540 EC** gebruik word sal die optimale werking daarvan in verdunningswater met 'n pH van 4.5 – 5.5 verkry word. Verdunningswater met 'n hoër of laer pH-waarde as 4.5 – 5.5 moet gebuffer word.
Wanneer **BUFFER** gebruik word om die verdunningswater te buffer, moet die BUFFER eers met die totale volume water wat vir die betrokke tenkmengsel benodig word, gemeng word en daarna word die **NOCTUS 540EC** bygevoeg.
Aangemaakte spuitmengsels moet nie in die spuittenk gelaat word vir 'n onbepaalde tydperk nie, byvoorbeeld oornag.

OPVOLGGEWASSE
Mielies, sorghum, koring of enige ander grasgewas moet nie op behandelde grond geplant word vir 'n periode van drie maande na toediening in die geval van 'n misluikte breëblaargewas nie.

STADIUM VAN TOEDIENING
Gewas:
Die gewas mag enige tyd behandel word wanneer die onkruide in die geskikte stadium is, met die voorwaarde dat die onthoudingsperiodes in ag geneem word.
Indien die gewas die onkruid afskerm gebruik valarms om goeie benatting van onkruide te verseker, anders kan swak onkruidbeheer moontlik verkry word.

Onkruide:
Onkruide wat tydens bespuiting nog nie ontkiem het nie, sal nie beheer word nie.
Grasonkruide moet aktief groei en nie onder droogtestremming tydens toediening wees nie, want dit kan die opname en translokasievermoë nadelig beïnvloed. Vir optimale beheer van eenjarige grasonkruide moet hulle tussen die 2 - 6 blaarstadium wees. Met Paspalum spp. word optimale beheer verkry wanneer toediening by die vroeë blomstadium gemaak word.
Onkruide nie benat deur die onkruiddoder oplossing sal nie geaffekteer word nie. Dit mag plaasvind in digte plantegroepe, swaar besmettings of wanneer planthoogte van die onkruide wissel sodat nie alle onkruide benat word nie. In sulke gevalle mag opvolgbehandeling nodig wees.
Reën of besproeiing binne een uur na toediening van **NOCTUS 540 EC** mag 'n herbespuiting noodsaaklik maak.
Alhoewel die tekens van beheer nie waargeneem word voor ten minste 2 - 3 weke na bespuiting nie, veroorsaak **NOCTUS 540 EC** onmiddellike staking van selverdeling in die plant en stop verdere groei.

LUGTOEDIENING
NOCTUS 540 EC kan slegs deur 'n geregistreerde Lugbespuitingsoperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS Kode 10118 (Aerial Application of Agricultural Pesticides) uit die lug bespuit word. Verseker dat die spuitmengsel eweredig oor die teikenarea versprei word, en die verlies aan spuitmengsel tydens toediening tot 'n minimum beperk word. Dit is daarom belangrik om aan die volgende vereistes te voldoen:

Volume: 'n Spuitmengsel volume van 30 tot 50 liter per hektaar word aanbeveel. Hierdie produk is nie teen 'n verlaagde volume getoets nie. Die registrasiehouer kan nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige nadelige effekte indien hierdie produk teen 'n laer volume as hierbo aanbeveel, toegedien word nie.
Druppelbedekking: 30 tot 40 druppels per cm² moet op die teikenarea herwin word.
Druppelgrootte: 'n Druppelspektrum met 'n VMD van 300 tot 350 mikrons word aanbeveel. Beperk die produksie van druppels kleiner as 150 mikrons (hoë drywing en verdampingspotensiaal) tot 'n minimum.
Vlieghoogte: Handhaaf die hoogte van die spuitbalk bo die teiken op 3 tot 4 meter.
Gebruik geskikte atomiseringsapparaat wat die vereiste druppelgrootte en bedekking sal produseer, maar die minste verlies van produk verseker. Die spuitstelsel moet 'n druppelspektrum met die kleinste moontlike Relatiewe Span produseer.
Die gebruik van 'n geregistreerde drywingsbeheermiddel en / of 'n lae drywing lugbespuiting spuitneus (bv. "straight stream nozzle") word aanbeveel.
Plaas al die atomiseerders in die binneste 60 tot 75 % van die vlerkspan om te verhoed dat druppels binne-in die **vlerkpuntvorteks** beweeg.
Die verskil in **temperatuur** tussen die nat- en droëbottermometer van 'n swaaihigrometer, moet nie 8°C oorskry nie.
Stop bespuiting indien die windspoed 15 km/h oorskry.
Stop bespuiting tydens turbulente, onstabiele en droë toestande gedurende die hitte van die dag.

Bespuiting onder temperatuur **inversie toestande** (deur bo of binne die inversie laag te spuit) en/of hoë lugvog toestande (relatiewe humiditeit 80 % en meer) mag tot volgende probleme aanleiding gee:
- verlaagde effektiwiteit aangesien die druppels as 'n wolk in die lug bly hang en moontlik verdamp (onvoldoende bedekking op teiken)
- skade aan nie-teiken gewasse of sensitiewe areas as gevolg van wegdrywing van die spuitwolk na nie-teiken area.

Verseker dat die Lugbespuitingsoperateur presies weet watter lande bespuit moet word.

Dit is noodsaaklik om 'n versekering van die Lugbespuitingsoperateur te verkry dat daar aan al die bogenoemde vereistes voldoen sal word en dat data van belang in 'n logboek saamgevat is vir toekomstige verwysing.

SPUITTOERUSTING
Grondtoediening:
Die spuittoerusting moet akkuraat gekalibreer word voor toediening. Gebruik platwaaiertipe spuitpunte om eweredige bedekking van die onkruide te verseker. Gebruik 200 - 300 liter spuitmengsel per hektaar vir algehele bespuiting.

AANBEVELING (SIEN NOTA 1 ONDER)
NOCTUS 540 EC

GEWAS	ONKRUIDSPESIE	ALGEMENE NAAM	DOSIS PER HA
Sagtevrugte (appels, pere, pruime, perskes, appelkose, nektariens)	*Avena fatua*	Wildehawer	100 ml
	Bromus diandrus	Predikantsluis	100 ml
	Bromus japonicus	Bromus	100 ml
Bosbou (dennebome, wattelbome, Eucalyptus)	*Digitaria sanguinalis*	Kruisvingergras	100 ml
	Eleusine indica	Jongosgras	100 ml
	Echinochloa colona	Moerasgras	100 ml
Druiwe	*Lolium temulentum*	Drabok	100 ml
	Phalaris canariensis	Kanariesaadgras	100 ml
Groente (beet, wortels, groenbone, uie, ertjies, aartappels, tamaties)	*Urochloa panicoides*	Beesgras	100 ml
	Panicum schinzii	Soetbuffelsgras	150 ml
Kanola	*Zea mays*	Opslagmielies	150 ml
	Panicum maximum	Buffelsgras	200 ml
Sonneblomme	*Triticum aestivum*	Opslagkoring	200 ml
	Paspalum dilatatum	Buffelskweek	300 ml
	Paspalum paspaloides	Kweek paspalum	300 ml
	Paspalum urvillei	Langbeen paspalum	300 ml
	Setaria megaphylla	Breeblaarsetaria	800 ml

NOTA 1: Moenie NOCTUS 540 EC in kwekerye, of op of oor kwekery plantmateriaal aanwend nie.

Hergroei mag plaasvind op goedgevestigde Paspalum spp. en Setaria megaphylla wat 'n opvolgbehandeling in die volgende seisoen sal benodig.

Hierdie produk beheer eenjarige grasse. Ander eenjarige grasse wat nie tydens die ontwikkelingsproewe met die middel voorgekom het nie, kan ook moontlik in meerdere of mindere mate beheer word. Die registrasiehouer aanvaar egter geen aanspreeklikheid ten opsigte van ongelyste onkruide nie.

OPMERKINGS
Moet nie met ander chemikalieë meng nie. Dit is nie nodig om 'n benatter by te voeg nie.

Dien toe in 200 - 300 liter water per hektaar. Vir optimale resultate moet toediening op eenjarige grasse vanaf die vroeë na-opkoms tot die 6 blaarstadium geskied en vir Paspalum spp. by die vroeë blomstadium.

SUIKERRIETRYPMAKER
ALGEMEEN
NOCTUS 540 EC sal jong blare doodmaak of hulle groei stuit en mag ook die groeipunte doodmaak na toediening. Groei is vertraag en top-punte mag afbreek. Dit sal geen verlaging van suiker opbrengs, in vergelyking met onbehandelde gewas, veroorsaak nie, mits die aanbevole periode tussen toediening en oes nie oorskry word nie. Hoër dosisse sal rypmaaksimptome oordryf.

VARIËTEITE
NCo 376, N 12, N 19 en N14. Ander variëteite mag wel reageer, maar tot op datum is hulle nog nie getoets nie.

TYD VAN TOEDIENING
Vroeë seisoen (laat somer - herfs)

Dien **NOCTUS 540 EC** slegs 4 - 10 weke voor oes toe. Moet nie na Mei toedien nie. Indien die gewas vinnig groei, is die tydperk tussen bespuiting en oes korter as wanneer weerstoestande koeler is en die gewas stadiger groei. Die gewas moet aktief groei wanneer bespuit word (m.a.w. nie onderhewig wees aan stremmingseffekte nie, soos byvoorbeeld voeding en vog).

SUIKERRIET	DOSIS PER HA	OPMERKINGS
VARIËTEITE NCo 376 N 12 N 19	30 ml	Grondtoediening Dien toe met 'n rugsakspuit met 'n oorhoofse spuitbalk in 50 - 200 liter water/ha.
N 14	40 ml	
NCo 376 N 12 N 19	33 ml	Lugtoediening Dien toe in 30- 35 lt per ha
N 14	40 ml	

Lotnommer
Datum van vervaardiging