

# VIXEN


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

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

Lotnommer  
 Datum van vervaardiging

## VIXEN

**HERBICIDE**



Reg. No. L9856, Act/Wet No. 36 of/van 1947

1: 25/06/2015

**A suspension concentrate herbicide for the control of sedges, broadleaf and annual grass weeds in the crops as indicated.**


**'n Suspensiekonsentraat onkruiddoder vir die beheer van uintjies, breëblaar-onkruid en eenjarige grasonkruid in gewasse soos aangedui.**

HRAC HERBICIDE GROUP CODE	E	HRAC ONKRUIDDODERGROEPPKODE
<b>ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL</b>		
Sulfentrazone (aryl-triazolinone)	480 g/ℓ	Sulfentrasoon (ariel-triasolinoon)


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


**5ℓ**

UN Number: 3082



**HARMFUL / SKADELIK**







## WARNINGS

- Handle with care.
- Store in the original container under lock and key in a cool, dry place away from food, feed, seed or other agricultural remedies.
- Keep out of reach of children, animals and uninformed people.
- May cause skin and eye irritation.
- In case of poisoning, call a medical doctor and show him/her this label.
- Toxic to fish and other aquatic organisms.
- **Re-entry:** Do not enter the treated area within one day after application unless wearing protective clothing.
- **VIXEN** has been tested on the most important commercial cultivars and no significant phyto toxic effects in the form of yield reduction have been recorded under normal growing conditions. More susceptible cultivars may be released in the future which need to be tested; for this apply **VIXEN** to a limited test area before commercial applications are made.

**Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be effective under all conditions. The activity and effect thereof may be affected by factors such as abnormal soil, climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the weed against the remedy, as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal, or for lack of performance of the remedy concerned due to failure by the user to follow the label instructions, or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.**

## PRECAUTIONS

- Do not inhale the spray mist.
- Avoid contact with the skin and eyes.
- Wear suitable protective clothing when handling the concentrate.
- Wash with soap and water directly after use or skin contact.
- In the case of eye contact: rinse the eyes with plenty of clean water for at least 15 minutes. Seek medical assistance if irritation persists.
- Do not smoke, eat or drink whilst handling this product or before washing hands and face and changing clothes.
- Prevent contamination of food, feed, drinking water as well as eating utensils.
- Wash contaminated clothing daily.
- Avoid spray drift onto other crops, rivers, grazing, dams and other areas not under treatment.
- Invert the empty container over the spraying or mixing tank and allow it to drain for at least thirty seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to at least 10% of the volume of the container. Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner.
- Clean all equipment thoroughly following use and dispose of the wash water where it will not pollute the environment. Destroy the empty container by perforation and do not use it for any other purpose. Dispose of the perforated container by burying or incineration at a suitable facility.

## SYMPTOMS OF HUMAN POISONING

Effects from overexposure resulting from inhaling this product. Symptoms of overexposure include convulsions, tremors, increased sensitivity to touch and sound, difficulty breathing, decreased locomotion, tearing, nasal discharge and unco-ordination.

### FIRST AID TREATMENT

**Eyes:** Flush eyes with plenty of clean water. Seek medical assistance if irritation occurs and persists.

**Skin:** Wash with plenty of soap and water. Seek medical assistance if irritation occurs and persists.

**Ingestion:** Rinse the mouth with water if the patient is conscious. Give the patient 1 to 2 glasses of water if the patient is able to swallow. **Do not induce vomiting.** Never give anything by mouth to an unconscious person. **Seek medical assistance.**

**Inhalation:** Remove the patient to fresh air. If breathing is difficult or discomfort occurs and persists, seek medical assistance.

#### **NOTE TO PHYSICIAN**

This product has a low oral, dermal and inhalation toxicity. This product is slightly irritating to the skin and eyes. Consideration should be given to gastric lavage with an endotracheal tube in place. The treatment is otherwise controlled by removal of exposure, followed by symptomatic and supportive care.

#### **USE RESTRICTIONS**

- Allow the following waiting periods between the last application of **VIXEN** and the planting of follow-up crops:

Crop	Waiting period (months)
Barley/wheat	5
Maize, Sorghum, Rice	10
Other cereals, dry beans and groundnuts	12
Cotton, Sweetcorn	18
Sugarcane, Soybeans and Tobacco	0

- Do not apply to any crop or situation not mentioned in this label.
- Do not apply this product in combination or tank mixture with any other product or agricultural remedy which is not specifically listed on this label. Meridian Agrochemical Company (Pty) Ltd accepts no responsibility for any negative effects experienced if the instructions on this label are not adhered to, unless a Meridian representative was consulted beforehand.

#### **RESISTANCE WARNING**

For resistance management, **VIXEN** is a group E (aryl-triazolinone) herbicide. Any weed population may contain individuals naturally resistant to **VIXEN** and other Group Code E herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **VIXEN** or any other Group Code E herbicides.

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

- Avoid the 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 **VIXEN** not controlling resistant weeds. Do not apply **VIXEN** alone in situations where weed resistance has been confirmed. Sub-standard application of **VIXEN** will lead to inferior weed control and may assist in development of herbicide resistance. It is of the utmost importance to inspect treated areas at regular intervals in order to identify the occurrence of herbicideresistant weeds timeously.

#### **MODE OF ACTION**

Following application of **VIXEN** to soil as a pre-emergent herbicide to weeds and crops, the targeted germinating seeds and seedlings take up the sulfentrazone from the soil solution. The amount of sulfentrazone in the soil solution, and the amount of sulfentrazone available for weed up-take is mainly determined by the soil type, organic matter and soil pH. Sulfentrazone adsorbs to the clay and organic matter fractions of soils. This effectively limits the amount of active ingredient which is immediately available to control the weeds.

#### **INFLUENCE OF SOIL TYPE, ORGANIC MATTER AND PH ON VIXEN FIELD PERFORMANCE**

The soil pH has an effect on the availability of sulfentrazone in the soil solution. As the soil pH increases, the sulfentrazone availability increases. Irrigation with alkaline water (pH 7.5 and above) following a **VIXEN** soil application can also significantly increase the availability of sulfentrazone in soil solution.

The total amount of sulfentrazone available in solution, in any given soil, is determined by the interaction of the soil type (i.e. clay content), pH and organic matter content. The application rate and timing relative to the emergence of the crop and weeds, and the amount of rainfall or irrigation received will determine, in conjunction with the soil parameters and the pH, the amount of sulfentrazone in soil solution.

All **VIXEN** applications require sufficient moisture for herbicidal activation. **VIXEN** can await activating moisture for extended periods (10-14 days). Once activated, **VIXEN** will provide activity on the existing weeds. The level of this activity will depend on the weed species and their size at the time of activation.

## **DIRECTIONS FOR USE**

**Use only as directed.**

## **COMPATIBILITY**

The compatibility of **VIXEN** 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. Do not mix **VIXEN** with any products not listed on this label.

**When using other products in a spray program with VIXEN, always consult the labels of those particular products regarding directions and restrictions for their application and crop rotation recommendations.**

## **MIXING AND APPLICATION INSTRUCTIONS**

Half-fill the spray tank with clean water and start agitation. Prepare a premix by carefully measuring out the required amount of **VIXEN** and mixing it with a few litres of clean water, and then slowly add the premix to the water in the tank while agitating. Carefully rinse the premix container and add the rinsate to the spray tank. Fill the spray tank to the required volume with clean water. Maintain constant agitation. Ensure that the **VIXEN** is thoroughly mixed before adding a surfactant and/or mixing partner. Should tank mixtures with other herbicides be made, follow the respective manufacturers' label recommendations. **Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight.** Spraying equipment must be thoroughly flushed out with water plus ammonia at the end of the spraying operation. Thereafter, all spray tips and strainers must be removed and cleaned separately in a bucket of clean water plus ammonia.

Use only clean water with a pH of less than 8.0.

## **SUGARCANE**

### **Pre-emergence application for *Cyperus rotundus* control in plant and ratoon sugarcane:**

Where *Cyperus rotundus* is a problem, it is necessary to take certain measures to control and reduce the future infestation potential of this weed. Lands infested with *Cyperus rotundus* are likely to have a dense and extensive system of rhizomes and nutlets which produce hardy plants over an extended period of time, especially when a good level of moisture is available. More than one treatment is required to control *Cyperus rotundus* in these situations and to significantly reduce the population of nutlets which have the potential to germinate in the subsequent crops. In order to achieve the maximum benefit, control measures should be started in plant cane. Under such circumstances it is recommended that a programme of three sprays of **VIXEN** be applied in 200 – 400 l water / ha as a pre-emergent spray. **The first spray should be at planting and then directly after the sugarcane is cut in the following two cycles.**

### **Pre-emergence application to plant and ratoon sugarcane and weeds:**

**VIXEN**, when applied as a pre-emergence herbicide to plant or ratoon cane, should provide residual control of germinating seeds and seedlings (refer to the recommendations table for the list of weeds controlled). **VIXEN** is absorbed by the roots and shoots of the germinating seeds and seedlings and applications must be made before the weeds emerge on a clean cultivated surface. Sufficient irrigation or rain is needed for **VIXEN** to be taken up by the roots and shoots of the germinating seeds and seedlings.

### **Soil preparation:**

**Plant cane:** Prepare the soil for planting in accordance with good agricultural practices.

**Ratoon cane:** Remove any debris covering the soil that will be treated before application.

### **Application methods**

Ensure that the equipment is correctly calibrated and is checked regularly during application to ensure even and accurate application. Ensure that spray drift does not come into contact with the surrounding crops and areas. Avoid the formation of fine droplets, use low pressure flat fan nozzles or equivalent anti-drift type nozzles and do not exceed a spray pressure of 200 kPa and a ground speed of 10 kph. The nozzles should not be more than 50 cm above the target. Do not apply if the wind velocity exceeds 15kph.

Apply **VIXEN** as an overall spray on plant cane and as a directed interrow spray on ratoon cane directly after planting or cutting and before emergence of the newly planted or ratoon cane.

Apply the recommended rate of **VIXEN** evenly as an overall application in sufficient water (200 – 400 l water / ha) in order to ensure adequate coverage of the soil surface.

Apply **VIXEN** in combination with a suitable surfactant / wetter (non-ionic; mineral oil; organosilicone) to yellow nutsedge (*Cyperus esculentus*) from the 6 – 8 leaf growth stage.

The performance of **VIXEN** is not affected by light or temperature and the product is not volatile. Therefore an application made to dry soil will remain on the soil surface for an extended period until activated by irrigation or moisture.

**VIXEN** applied at the lower rates may provide control of Yellow nutsedge (*Cyperus esculentus*).

### **Soil type**

Apply **VIXEN** as a pre-emergent treatment to soils with a clay content of > 15% The use of a pre-emergent **VIXEN** application on soils with a lower clay content may adversely affect the performance of the product.

Increase the rate of **VIXEN** within the recommendations as the clay content and the cation exchange rate of the soil increases. Use the higher rate for soils with a pH of less than 7.0 and the lower rates for soils with a pH greater than 7.0 within the recommended rate range.

### **Late post-emergence application to plant and ratoon cane for yellow nutsedge control:**

**VIXEN**, when applied as a post emergent herbicide, should provide control of yellow nutsedge (*Cyperus esculentus*). Apply with a suitable surfactant (non-ionic, mineral oil, organosilicone) at the 6 – 8 leaf stage of the yellow nutsedge.

The rate at which **VIXEN** alone is applied as a post emergent treatment provides inadequate control of non-germinated weeds and will only provide short term control of yellow nutsedge with limited soil activity (some suppression of *Cyperus rotundus* may be achieved).

### **Soil preparation:**

#### **Post emergent application**

The soil surface should be free of debris / trash as this may adversely affect the penetration of the spray and the uptake of the product.

### **RECOMMENDATIONS**

**Table 1: Pre-emergence application in plant- and ratoon sugarcane for the control of purple watergrass (*Cyperus rotundus*):**

Timing	Dosage (ℓ / ha)	Soil type	Remarks
Pre-emergence	1.9	<ul style="list-style-type: none"> <li>Fine soil</li> <li>Medium soil</li> </ul>	<p>Depending on the soil type and where there is a mixed population of sedges including <i>Cyperus rotundus</i> or where <i>Cyperus rotundus</i> is dominant.</p> <p>Annual application should result in a reduction of the sedge tuber population. Refer to the "List of weeds controlled by <b>VIXEN</b>" below.</p>

**Table 2: Late Post Emergence applications for short term control close to the canopy:**

Timing	Dosage (ℓ / ha)	Sedges	Remarks
Post-emergence (short term: For further detail see the SASRI herbicide guideline)	0.55 ℓ <b>VIXEN</b> + suitable surfactant	<i>Cyperus esculentus</i> (6-8 leaf stage, just before flowering)	Use a non-ionic mineral oil or organosilicone surfactant.

**List of weeds controlled in Sugarcane with the application of VIXEN:**

Sedges		Broadleaf weeds		Grasses	
Scientific name	Common name	Scientific name	Common name	Scientific name	Common name
<i>Cyperus rotundus</i>	Purple nutsedge	<i>Ageratum conyzoides</i>	Invading ageratum	<i>Setaria verticillata</i>	Sticky bristle grass
<i>Cyperus esculentus</i>	Yellow nutsedge	<i>Amaranthus spp.</i>	Pigweeds	<i>Digitaria sanguinalis</i>	Crab fingergrass
		<i>Bidens pilosa</i>	Common Blackjack	<i>Paspalum dilatatum</i>	Common paspalum
		<i>Commelina benghalensis</i>	Benghal Wandering Jew	<i>Sorghum bicolor</i>	Wild grain sorghum
		<i>Coryza floribunda</i>	Tall feabane	<i>Panicum maximum</i> (from seed only)	Common Buffalo grass
		<i>Ipomoea pupurea</i>	Common Morning glory	<i>Panicum natalensis</i>	Natal Buffalo grass
		<i>Plantago lanceolata</i>	Narrow-leaved ribwort		
		<i>Portulaca oleracea</i>	Purslane		
		<i>Schkuhria pinnata</i>	Dwarf marigold		
		<i>Solanum nigrum</i>	Black nightshade		

**NOTE**

- Refer to the note "**Mode of Action**" above and read it carefully.
- The registration holder does not accept responsibility for any unlisted weeds.
- Soil moisture and rainfall influences the activity of **VIXEN**. In general, the rainfall needed to initiate weed germination will be sufficient to activate **VIXEN**. However, the performance will be influenced by the level

of humidity in the soil: The higher the humidity, the more the product will dissolve and become available for uptake by the weeds.

- The activity of **VIXEN** is significantly adversely affected by low rainfall and should not be applied if these conditions are anticipated. High rainfall (> 450 mm) will also cause leaching of the product in coarse soils, which may result in poor weed control and poor residual control.
- The performance of **VIXEN** can also be affected by the soil type and texture. Generally, the weed control decreases as the soil texture progresses from coarse to fine. Therefore, the higher rates are indicated in soils with a higher clay content and Cation Exchange Coefficient.
- When using **VIXEN** in tank mixtures, follow all label directions for use of that particular product.
- When applied either as a pre-emergence or post emergence application to sugarcane, a slight scorch may appear on the leaves, especially if the crop is subjected to stress conditions (such as drought). These symptoms are temporary and will disappear as the sugarcane plant grows.
- Due to the specific mode of action of **VIXEN**, visual symptoms of desiccation, especially on sedges, can be delayed by up to more than 60 days. The speed at which the symptoms appear on the leaves is related to various factors such as the soil humidity, soil type and the speed of development of the sedges.

### FLUE CURED TOBACCO

Use the higher rate of **VIXEN** for improved broadleaf weed control and on soils with a higher clay content. Apply **MOTIF** (L 7819) for improved broadleaf and grass control as a sequential spray and **not** as a tank mix, immediately after application of **VIXEN**. Consult the respective label of **MOTIF**.

**VIXEN** should be applied within 4 days of transplanting onto a good weed-free tilth. The nozzles should be mounted over the interrow and a directed spray aimed to include the top of the ridge and the base of the plants on either side in order to avoid contact with the heart of the plant.

Apply the treatment with flat fan nozzles in a spray volume of up to 200 l / ha.

Irrigation or rainfall is needed to activate the herbicide.

Excessive rainfall and a high soil moisture content may lead to incomplete weed control on the ridges due to leaching of **VIXEN**.

### RECOMMENDATIONS

Dosage (l ha)	Broadleaf weeds		Grasses	
	Scientific name	Common name	Scientific name	Common name
400 – 470 mℓ <b>VIXEN</b>	<i>Acanthospermum hispidum</i>	Upright starbur		
	<i>Amaranthus spp.</i>	Pigweeds		
400 mℓ <b>VIXEN</b> + 0.8 ℓ <b>MOTIF</b>	<i>Acanthospermum hispidum</i>	Upright starbur	<i>Digitaria sanguinalis</i>	Crab fingergrass
	<i>Amaranthus spp.</i>	Pigweeds	<i>Echinochloa colona</i>	Marsh grass
	<i>Chenopodium album</i>	White goosefoot	<i>Panicum maximum</i>	Common Buffalo grass
	<i>Galinsoga parviflora</i>	Gallant soldier		
	<i>Nicandra physaloides</i>	Apple-of-Peru		

Consult the **MOTIF** label for recommendations and dosage rates.

### ACKNOWLEDGEMENT OF TRADEMARKS

Motif (L 7819)

Meridian Agrochemical Company (Pty) Ltd

## WAARSKUWINGS

- Hanteer versigtig.
- Stoor in die oorspronklike houer in 'n koel droë plek weg van voedsel en voer.
- Hou buite bereik van kinders, oningeligte persone en diere.
- Mag vel en oë irriteer.
- In geval van vergiftiging, ontbied 'n geneesheer en toon hierdie etiket aan hom/haar.
- Giftig vir visse en ander waterorganismes.
- **Herbetreding:** Moet nie behandelde gebied binne 1 dag na bespuiting betree nie, tensy beskermende oorklere gedra word.
- **VIXEN** is sonder enige fitotoksiseitskade op die mees belangrikste kommersiële kultivars getoets. Meer vatbare kultivars mag in die toekoms vrygestel word wat eers getoets moet word; hiervoor moet **VIXEN** eers op 'n klein toetsoppervlakte aangewend word, alvorens groot kommersiële bespuitings gemaak word.

**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 grond-, klimaats- en bergingstoestande, verenigbaarheid met ander stowwe wat nie op die etiket aangedui is nie en die voorkoms van weerstand van die 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 gebrek aan doeltreffendheid 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 onmiddellik in die geval van enige onsekerheid.**

## VOORSORGMAATREËLS

- Verhoed inaseming van die spuitnewel.
- Vermy kontak met vel en oë.
- Dra beskermende oorklere en handskoene tydens hantering van konsentraat.
- In die geval van toevallige velkontak, was met seep en water.
- In die geval van toevallige oogkontak, spoel oë uit met baie water vir ten minste 15 minute. Verkry mediese hulp indien irritasie voortduur.
- Moenie eet, drink of rook tydens vermenging of toediening, of voordat hande en gesig gewas is nie.
- Voorkom die besoedeling van voedsel, voer, drinkwater en eetgerei.
- Was besoedelde klere na gebruik.
- Vermy spuitstofwegdrywing na aangrensende gewasse, riviere, damme en ander plekke wat nie onder behandeling is nie.
- Keer die leë houer om oor die spuit- of mengtenk en laat dit dreineer vir ten minste dertig sekondes nadat die vloeitot 'n gedrup verminder het. Spoel die houer **drie keer** uit met 'n volume water gelykstaande aan ten minste 10% van die volume van die houer. Gooi die spoelwater by die inhoud van die spuittenk voordat die houer op die voorgeskrewe wyse vernietig word.
- Maak alle apparate deeglik skoon na gebruik en gooi die waswater weg waar dit nie die omgewing sal besoedel nie. Vernietig die leë houer deur gate daarin te maak en plat te kap en moet dit vir geen ander doel gebruik nie. Raak ontslae van die houer deur dit te begrawe of in 'n geskikte verbrandingssoond te vernietig.

## SIMPTOME VAN MENSLIKE VERGIFTIGING

Simptome van oormatige blootstelling deur inaseming van hierdie produk sluit stuipe, bewing, verhoogde sensitiwiteit vir aanraking en klank, moeilike asemhaling, verminderde beweging, trane, neusontslag en ongekoördineerde gedrag in.

## NOODHULPBEHANDELING

**Oë:** Spoel oë met oorvloedige water.

**Vel:** Was met oorvloedige seep en water. Indien irritasie voorkom en aanhou, ontbied 'n geneesheer.



**Ingesluk:** Spoel mond uit indien die pasiënt by bewussyn is. Gee die pasiënt 1 tot 2 glase water om te drink indien die pasiënt kan sluk. **Moenie braking induseer nie.** Moenie enige iets per mond aan 'n bewustelose persoon gee nie. **Verkry mediese aandag.** Ontbied 'n geneesheer.

**Inaseming:** Verwyder pasiënt na gebied met genoegsame vars lug. Indien ongerief of probleme met asemhaling voorkom en volhou, ontbied 'n geneesheer.

#### **NOTA AAN GENEESHEER**

Hierdie produk het 'n lae mondelinge-, dermale- en inasemingstoksiteit. Dit kan matige velirritasie veroorsaak, maar dit is nie irriterend vir oë nie. Oorweeg maagspoeling met endotragialebuis in plek. Behandeling word andersins beheer deur onttrekking aan die blootstelling gevolg deur simptome en ondersteunende nasorg.

#### **GEBRUIKSBEPERKINGS**

Laat die volgende wagperiodes tussen laaste toediening van **VIXEN** en die aanplant van opvolggewasse toe:

<b>Gewas</b>	<b>Wagpriode (Maande)</b>
Koring / Gars	5
Mielies, Sorghum, Rys	10
Ander Kleingraangewasse, Droëbone, Grondbone	12
Katoen, Suikermielies	18
Suikerriet, Sojabone, Tabak	0

- Moet nie op enige gewas of in enige situasie toedien wat nie op hierdie etiket aangedui word nie.
- Moet nie hierdie produk in kombinasie of mengsel met enige ander produk of landboumiddel gebruik wat nie spesifiek op die etiket gelys is nie. Meridian Agrochemical Company (Edms.) Bpk. aanvaar geen verantwoordelikheid vir enige negatiewe gevolge ervaar indien die instruksies op die etiket nie nagekom word nie, tensy 'n Meridian verteenwoordiger vooraf geraadpleeg is.

#### **WEERSTANDSWAARSKUWING**

Vir weerstandsbestuur is **VIXEN** 'n groep E (ariel-triasolinon) onkruidodder. Enige onkruidpopulasie mag individuele onkruid insluit wat 'n natuurlike weerstand teen **VIXEN** en ander Groepkode E onkruidodder het. Indien hierdie onkruidodders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die onkruidpopulasie oorheers. Hierdie weerstandbiedende onkruid sal waarskynlik nie deur **VIXEN** of enige ander Groepkode E onkruidodder beheer word nie.

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

- Vermoed die eksklusiewe herhaaldelike gebruik van onkruidodders met dieselfde onkruidoddergroepkode. Wissel af met, of gebruik tenkmengsels van, produkte in verskillende onkruidoddergroepcodes.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in onkruidbeheerprogramme.

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

Die teenwoordigheid van weerstandbiedende onkruid is moeilik om voor gebruik te bepaal en kan die Registrasiehouer of die Verspreider dus nie verantwoordelikheid vir enige verliese aanvaar as **VIXEN** nie weerstandbiedende onkruid beheer nie. Moenie **VIXEN** alleen in situasies waar onkruidweerstand bevestig is, toedien nie. Sub-standaard toediening van **VIXEN** sal lei tot onbevredigende onkruidbeheer wat kan help met die ontwikkeling van weerstand teen onkruidodders. Dit is van die uiterste belang om behandelde gebiede met gereelde tussenposes te inspekteer ten einde die voorkoms van onkruidodderweerstandbiedende onkruid vroegtydig te identifiseer.

#### **METODE VAN WERKING**

Na toediening van **VIXEN** op die grond as 'n vooropkomsonkruidodder van onkruid en gewasse, neem die geteikende ontkiemende sade en saailinge die sulfentrasoon uit die grondoplossing op. Die hoeveelheid sulfentrasoon in die grondoplossing en die hoeveelheid sulfentrasoon wat vir onkruidopname beskikbaar is, word hoofsaaklik bepaal deur die grondtipe, organiese materiaal en grond pH. Sulfentrasoon word geabsorbeer na die klei en organiese materiaaldeeltjies van grond. Dit beperk die hoeveelheid aktiewe bestanddeel wat onmiddellik beskikbaar is om die onkruid te beheer.

## INVLOED VAN GRONDTIPE, ORGANIESE MATERIAAL EN pH OP VIXEN VELDDOELTREFFENDHEID

Die grond pH het 'n uitwerking op die beskikbaarheid van sulfentrasoon in die grondoplossing. As die grond pH toeneem, sal die sulfentrasoon beskikbaarheid toeneem. Besproeiing met alkaliese water (pH 7.5 en hoër) na 'n **VIXEN** grondtoediening kan ook die beskikbaarheid van sulfentrasoon in die grondoplossing aansienlik verhoog.

Die totale hoeveelheid sulfentrasoon in oplossing beskikbaar, in enige gegewe grond, word deur die interaksie van die grondtipe (dws klei-inhoud), pH en organiese materiaal inhoud bepaal. Die toedieningsdosis en tydsberekening met betrekking tot die opkoms van die gewas en onkruid, en die hoeveelheid reënval of besproeiing ontvang sal, in samewerking met die grondparameters en die pH, die hoeveelheid sulfentrasoon in die grondoplossing bepaal.

Alle **VIXEN** toedienings vereis voldoende grondvog vir aktivering van die onkruidodende werking. **VIXEN** kan 'n tydperk van 10-14 dae uitweg voor die nodige vogtigheid om die produk te aktiveer, beskikbaar is. Sodra dit geaktiveer word, sal **VIXEN** effektief op die bestaande onkruid wees. Die doeltreffendheid van hierdie werking sal van die onkruidspesies en hul grootte ten tye van die aktivering afhang.

### GEBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

### VERENIGBAARHEID

Die verenigbaarheid van **VIXEN** met ander produkte hang van die formulering van die betrokke produkte af, asook van die kwaliteit van die spuitwater wat gebruik word. Deurdadig formulering van tyd tot tyd verander, word dit aanbeveel om 'n fisiese verenigbaarheidstoets te doen voordat die tenkmengsel gemaak word. Moenie **VIXEN** met enige produkte wat nie op hierdie etiket gelys is meng nie.

**In die geval van die gebruik van ander produkte in 'n spuitprogram saam met VIXEN, verwys altyd na die etikette van die spesifieke produkte rakende die aanwysings en beperkings van hul toediening en wisselbou-aanbevelings.**

### VERMENGINGS- EN TOEDIENINGSINSTRUKSIES

Maak die spuittenk halfvol met skoon water en begin met roering. Berei 'n mengsel voor deur versigtig die vereiste hoeveelheid van **VIXEN** af te meet en met 'n paar liter skoon water te meng en dan hierdie mengsel stadig by die water in die tenk te gooi terwyl dit geroer word. Spoel die houër versigtig uit en voeg die spelwater by die spuittenk. Vul die spuittenk tot die verlangde volume met skoon water. Handhaaf konstante roering. Maak seker dat die **VIXEN** deeglik gemeng word voor die byvoeging van 'n benattingsmiddel en/of mengvennoot. Indien tenkmengsels met ander onkruidoders gemaak word, volg die onderskeie vervaardigers se etiketaanwysings. **Tenkmengsels moet onmiddellik uitgespuit word en nie toegelaat word om oornag in die spuittenk oor te staan nie.** Spuittoerusting moet deeglik met water en ammoniak aan die einde van die toediening uitgespoel word. Daarna moet alle spuitpunte en siwwe verwyder word en apart skoongemaak word in 'n emmer met skoon water plus ammoniak.

Gebruik slegs skoon water met 'n pH van minder as 8.0.

### SUIKERRIET

#### **Voor-opkomstoediening vir *Cyperus rotundus* beheer in plant- en ratoenriet:**

Waar *Cyperus rotundus* 'n probleem is, moet sekere beheermaatreëls toegepas word om die beheer en die toekomstige besmettingspotensiaal van hierdie onkruid te verminder. Lande wat besmet is met *Cyperus rotundus* is geneig om 'n digte en uitgebreide stelsel van wortelstokke en bolle te bevat wat geharde plante produseer oor 'n verlengde tydperk, veral wanneer 'n goeie vlak van vog beskikbaar is. Meer as een behandeling is nodig om *Cyperus rotundus* in sulke situasies te beheer, en die vermindering van die bolpopulasie wat in opvolgplantings sal ontwikkel, te handhaaf. Ten einde die maksimum voordeel te verkry, moet beheermaatreëls begin word as die riet geplant word. Onder sulke omstandighede word dit aanbeveel om 'n program van drie bespuitings van **Vixen** in 200 - 400 l water/ha as 'n vooropkomsbespuiting te doen. **Die eerste bespuiting moet tydens plant geskied en dan direk na die suikerriet gesny is, die volgende twee siklusse.**

#### **Voor-opkomstoediening aan plant- en ratoenriet en onkruid:**

Wanneer **Vixen** as 'n voor-opkomsonkruidodder op plant- of ratoensuikerriet toegedien word, behoort dit residuele beheer van ontkiemende sade en saailinge (verwys na die etiketaanbevelings vir die lys van onkruid wat beheer

word) te verskaf. **VIXEN** word geabsorbeer deur die wortels en lote van ontkiemende sade en saailinge en toedienings moet op 'n skoon bewerkte oppervlak gemaak word voordat die onkruid opkom. Voldoende besproeiing of reënval is nodig vir **VIXEN** om deur die wortels en lote van ontkiemende sade en saailinge opgeneem te word.

#### **Grondvoorbereiding:**

**Plantriet:** Berei die grond voor in ooreenstemming met goeie landboupraktyke.

**Ratoenriet:** Voor toediening moet alle plantreste wat die grond bedek, verwyder word.

#### **Toedieningsmetodes**

Verseker dat die spuittoerusting korrek gekalibreer is en gereeld gedurende toediening nagegaan word om egalige en akkurate toediening te verseker. Verseker dat die spuitnewel nie in kontak met die omliggende gewasse en gebiede kom nie. Vermyn die vorming van fyn druppels en gebruik laedruk-platwaaierspuitpunte of gelykstaande anti-newelspuitpunte en moet nie 'n spuitdruk van 200 kPa en 'n grondspoed van 10 km per uur oorskry nie. Die spuitkoppe moet nie meer as 50 cm bokant die teiken wees nie. Moet nie toedien indien die windspoed hoër as 15 km per uur is nie.

Dien **VIXEN** toe as 'n algehele bespuiting op plantriet en as 'n gerigte tussenry-bespuiting op ratoensuikerriet direk na plant of sny en vooropkoms van die nuut geplante plant- of ratoensuikerriet.

Dien die aanbevole hoeveelheid van **VIXEN** egalig toe as 'n algehele bespuiting in voldoende water (200 - 400 l water/ha) om goeie bedekking van die grondoppervlak te verseker.

Dien **VIXEN** toe in kombinasie met 'n geskikte bevorderingsmiddel/benatter (nie-ioniese; minerale olie; organosilikon) aan geeluintjies (*Cyperus esculentus*) vanaf die 6 - 8 - blaarstadium.

Die doeltreffendheid van **VIXEN** word nie deur lig of temperatuur geaffekteer nie en die produk is nie wisselvallig nie. Daarom sal 'n toediening wat op die droë grondoppervlak gemaak word vir 'n lang tydperk daar bly, totdat dit deur besproeiing of vog geaktiveer word.

**VIXEN** wat teen die laer dosis toegedien word, kan beheer van Geeluintjies (*Cyperus esculentus*) verskaf.

#### **Grondtipe**

Dien **VIXEN** toe as 'n voor-opkomsbehandeling in gronde met 'n klei-inhoud van > 15%. Die gebruik van 'n voor-opkoms **VIXEN** behandeling op grond met 'n laer klei-inhoud mag die effektiwiteit van die produk nadelig beïnvloed.

Verhoog die dosis van **VIXEN** namate die klei-inhoud en die kationuitruilvermoë van die grond toeneem. Gebruik die hoër dosis in gronde met 'n pH van minder as 7.0 en die laer hoeveelhede vir gronde met 'n pH van meer as 7.0 binne die aanbevole toedieningshoeveelhede.

#### **Laat na-opkomstoediening op plant- en ratoensuikerriet vir geeluintjies beheer:**

**VIXEN**, wanneer dit as 'n na-opkoms onkruiddoder toegedien word, behoort dit beheer van geeluintjies (*Cyperus esculentus*) te verskaf. Dien toe met 'n geskikte bevorderingsmiddel (nie-ioniese, minerale olie, organosilikon) by die 6-8 blaarstadium van die geeluintjies.

Die dosis waarteen **VIXEN** alleen as 'n na-opkoms behandeling toegedien word sal onvoldoende beheer van nie-ontkiemende sade gee en sal slegs korttermynbeheer van geeluintjies met beperkte grondaktiwiteit (sommige onderdrukking van *Cyperus rotundus* kan bereik word) verskaf.

#### **Grondvoorbereiding:**

#### **Na-opkomstoediening**

Die grondoppervlak moet vry van plantreste/rommel wees omdat dit 'n nadelige uitwerking op die penetrasie van die spuitstof en opname van die produk kan hê.

#### **AANBEVELINGS**

**Tabel 1: Voor-opkomstoediening in plant- en ratoensuikerriet vir die beheer van rooiuintjies (*Cyperus rotundus*):**

Tyd	Dosis (ℓ / ha)	Grond tipe	Opmerkings
Voor-opkoms	1.9	<ul style="list-style-type: none"> <li>• Fyn grond</li> <li>• Medium grond</li> </ul>	<p>Afhangende van die grondtipe en waar daar 'n gemengde populasie van biesies insluitend <i>Cyperus rotundus</i> is of waar <i>Cyperus rotundus</i> oorheersend is.</p> <p>Jaarlikse toediening behoort tot 'n vermindering van die uintjebolle populasie te lei. Verwys na die "Lys</p>
			van onkruid beheer deur <b>VIXEN</b> " hieronder.

**Tabel 2: Laat Na-opkomstoediening vir korttermyn beheer naby aan die blaardak:**

Tyd	Dosis (ℓ / ha)	Uintjies	Opmerkings
Na-opkoms (korttermyn: Vir verdere besonderhede, sien die SASRI onkruidoderriglyn)	0.55 ℓ <b>VIXEN</b> + geskikte benatter	<i>Cyperus esculentus</i> (6-8 blaarstadium, net voor blom)	Gebruik 'n nie-ioniese minerale olie of organosilikon bevorderingsmiddel.

**Lys van onkruid wat deur VIXEN in Suikerriet beheer word:**

Biesies		Breëblaaronkruid		Grasse	
Wetenskaplike Naam	Gewone Naam	Wetenskaplike Naam	Gewone Naam	Wetenskaplike Naam	Gewone Naam
<i>Cyperus rotundus</i>	Rooiuintjie	<i>Ageratum conyzoides</i>	Indringer-Ageratum	<i>Setaria verticillata</i>	Klitssetaria
<i>Cyperus esculentus</i>	Geeluintjie	<i>Amaranthus spp.</i>	Gewone Misbredie	<i>Digitaria sanguinalis</i>	Kruisvingergras
		<i>Bidens pilosa</i>	Knapsekerel	<i>Paspalum dilatatum</i>	Gewone paspalum
		<i>Commelina benghalensis</i>	Bengaalse wandelende Jood	<i>Sorghum bicolor</i>	Wilde graansorghum
		<i>Conyza floribunda</i>	Vaalskraalhans	<i>Panicum maximum</i> (na saad alleen)	Gewone buffelsgras
		<i>Ipomoea pupurea</i>	Algemene purperwinde	<i>Panicum natalensis</i>	Natale Buffelsgras
		<i>Plantago lanceolata</i>	Smalblaarplantago		
		<i>Portulaca oleracea</i>	Porslein		
		<i>Schkuhria pinnata</i>	Kleinkakiebos		
		<i>Solanum nigrum</i>	Nastergal		

**NOTA**

- Verwys na die nota "**Metode van Werking**" hierbo en lees dit noukeurig.
- Die registrasiehouer aanvaar nie verantwoordelikheid vir enige ongelyste onkruid nie.
- Grondvog en reënval beïnvloed die aktiwiteit van **VIXEN**. Normaalweg sal die reënval wat onkruid laat ontkien voldoende wees om **VIXEN** te aktiveer. Dit sal egter die doeltreffendheid beïnvloed deur die vlak

van die humiditeit in die grond: Hoe hoër die humiditeit, hoe meer sal die produk oplos en beskikbaar wees vir opname deur die onkruid.

- Die doeltreffendheid van **VIXEN** word aansienlik nadelig geraak deur lae reënval en moet nie toegedien word indien hierdie toestande verwag word nie. Hoë reënval (> 450 mm) sal ook loging van die produk in growwe grond veroorsaak, wat kan lei tot swak onkruidbeheer en swak nawerking.
- Die doeltreffendheid van **VIXEN** kan ook deur die grondtipe en -tekstuur beïnvloed word. Onkruidbeheer word normaalweg swakker as die grondtekstuur van grof tot fyn verander. Daarom, die hoër dosisse word aangedui in grond met hoër klei-inhoud en kationuitruilvermoë.
- Volg alle aanbevelings van die etiket wanneer tenkmengsels gebruik word.
- Indien **VIXEN** óf as 'n voor-opkoms of na-opkoms behandeling in suikerriet toegedien word, mag 'n ligte skroei op die blare verskyn, veral as die gewas blootgestel is aan stressoestande (soos droogte). Hierdie simptome is tydelik en sal verdwyn as die suikerrietplant groei.
- As gevolg van die spesifieke metode van werking van **VIXEN**, kan sigbare simptome van uitdroging, veral op uintjies, meer as 60 dae neem om te ontwikkel. Die spoed waarteen die simptome op die blare verskyn is verwant aan verskeie faktore soos die grondhumiditeit, grondtipe en die spoed van die ontwikkeling van die uintjieblare.

### OONDDROOGTABAK

Gebruik die hoër dosis van **VIXEN** vir beter beheer van breëblaaronkruidbeheer en op gronde met 'n hoër klei-inhoud. Vir beter breëblaar- en grasbeheer dien **MOTIF** (L 7819) as 'n opeenvolgende spuit toe en **nie** as 'n tenkmengsel nie, onmiddellik na toediening van **VIXEN**. Raadpleeg die onderskeie etiket van **MOTIF**.

**VIXEN** moet binne 4 dae van uitplant op 'n goeie onkruidvrye fyn saadbed toegedien word. Die spuitkoppe moet oor die tussen-rye gemonteer word om 'n gerigte bespuiting wat die bokant van die bankie en die onderstam van albei kante van die plante tref, maar vermy kontak met die kelk van die plant.

Dien met platwaaierspuitkoppe in 'n spuitvolume van tot 200 l/ha toe.

Besproeiing of reën is nodig om die onkruiddoder te aktiveer.

Oormatige reënval en 'n hoë grondvog kan tot onvolledige onkruidbeheer op die bankie lei weens die beweging van **VIXEN**.

### AANBEVELINGS

Dosis (/ ha)	Breëblaaronkruid		Grasse	
	Wetenskaplike naam	Algemene naam	Wetenskaplike naam	Algemene naam
400 – 470 mℓ <b>VIXEN</b>	<i>Acanthospermum hispidum</i>	Regopsterklits		
	<i>Amaranthus spp.</i>	Misbredie		
	<i>Acanthospermum hispidum</i>	Regopsterklits	<i>Digitaria sanguinalis</i>	Kruisvingergras
400 mℓ <b>VIXEN</b> + 0.8 ℓ <b>MOTIF</b>	<i>Amaranthus spp.</i>	Misbredie	<i>Echinochloa colona</i>	Moerasgras
	<i>Chenopodium album</i>	Withondebossie	<i>Panicum maximum</i>	Gewone buffelsgras
	<i>Galinsoga parviflora</i>	Knopkruid		
	<i>Nicandra physaloides</i>	Basterappelliefie		

Raadpleeg die **MOTIF** etiket vir aanbevelings en dosisse.

### ERKENNING VAN HANDELSMERKE

Motif (L 7819)

Meridian Agrochemical Company (Edms.) Bpk.