

BRAWLER

BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY

GEBRUIKSAANWYSYNGS INGESLUIT
Lomommer
Datum van vervaardiging

VERWYS NA BESONDERHEDE
SOOS OP HOUER / SAK GEDRUK

BRAWLER

HERBICIDE



Reg. No. L10190 Act/Wet No. 36 of/van 1947

1: 13/12/2016

An emulsifiable concentrate herbicide for the control of ryegrass, certain annual grasses and broadleaf weeds in the crops as indicated in the Winter Rainfall Region.

'n Emulgeerbare konsentraat onkruidodder vir die beheer van raai gras, sekere eenjarige grasse en breëblaaronkruid in die gewasse soos aangedui in die Winterreënvalstreek.

HRAC HERBICIDE GROUP CODE	N	HRAC ONKRUIDDODERGROEPKODE
ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL		
Prosulfocarb (thiocarbamate)	800 g/ℓ	Prosulfokarb (tiokarbamaat)

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

20ℓ



HARMFUL / SKADELIK



UN Number: 3082



DIRECTIONS FOR USE ENCLOSED
 Batch Number
 Date of manufacture

REFER TO DETAILS AS PRINTED
ON CONTAINER / BAG

WARNINGS

Withholding periods (minimum number of days between last application and harvest or feeding):

Wheat and Barley: Allow at least 84 days between application and harvest or feeding. When applied in combination with **DIFFLAN**, a period of at least 120 days between application and harvest or feeding must be allowed.

NOTE: The withholding periods above are based on local requirements for residue levels and may differ from other countries to which treated products may be exported.

- Harmful if swallowed: If swallowed, **seek medical advice immediately** and show this label or container.
- Handle with care.
- May cause serious eye damage.
- Irritating to eyes and skin.
- Repeated exposure may cause dryness and cracking of skin.
- Wear suitable eye and skin protection.
- Irritating to respiratory system.
- **Harmful:** May cause lung damage if swallowed.
- Vapours may cause drowsiness and dizziness.
- Very toxic to aquatic organisms and may cause long-term adverse effects in the environment. Use appropriate containment to avoid environmental contamination.
- Comply with the instructions for use in order to avoid risks to man and the environment.
- Store under lock and key in a cool, dry, well-ventilated area away from food, feed, seed and fertilizers.
- Store in the original, tightly closed container away from sun and damp.
- Keep out of reach of children, animals and uninformed people.
- Do not spray over, or allow any spray drift to contaminate, water and adjacent areas.
- **Re-entry:** Do not enter the treated area until the spray deposit has dried unless wearing protective clothing.
- **BRAWLER** has been tested on the most important commercial cultivars. More susceptible cultivars may be released in the future which need to be tested; for this, apply **BRAWLER** 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 contaminate surface water or ditches with any chemicals or used containers.
- Do not inhale vapour or spray mist.
- Avoid skin, eye or clothing contact with the concentrate or spray mixture.
- Wear protective clothing (impermeable gloves, overalls, and eye / face protection, hat or cap as well as solid footwear) while handling this product.
- Wash with soap and water directly after use.
- Avoid prolonged or repeated exposure to the spray mist.
- 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.
- Thoroughly wash protective equipment and contaminated clothing after use.
- Triple rinse empty containers as follows: 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.

- Avoid spray drift onto other crops, grazing, rivers, dams or other areas not under treatment.
- Clean all equipment thoroughly following use and dispose of the wash water where it will not pollute the environment or contaminate crops, grazing, rivers or dams.
- Destroy the empty container by perforation and flattening and dispose of it in a safe way in accordance with local regulations. Do not use it for any other purpose.

SYMPTOMS OF HUMAN POISONING

This product is irritating to skin and may cause dryness and cracking. May cause irritation of the respiratory tract. May cause drowsiness and dizziness. Solvent in product may cause pulmonary injury.

FIRST AID TREATMENT

Have the product container, label or Safety Data Sheet with you when calling a poison control center, physician or when going for treatment.

Eyes: Flush eyes with plenty of clean water for at least 20 minutes while holding the eyelid/s open. Remove contact lenses if present. **Seek medical assistance immediately.**

Skin: Remove all contaminated clothing immediately. Wash with plenty of soap and water. Seek medical assistance if irritation occurs and persists. Wash contaminated clothing before re-use.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs, keep the patients head below their hip in order to prevent aspiration. **Seek medical assistance immediately and show this container or label.**

Inhalation: Remove the patient to fresh air and keep him / her calm, reassured and at rest. If breathing is difficult, irregular or has stopped, administer artificial respiration. **Seek medical assistance.**

NOTE TO PHYSICIAN

This product contains an aromatic hydrocarbon solvent. No specific antidote is available, treat symptomatically and supportively.

USE RESTRICTIONS

- Do not apply the tank mixture of **BRAWLER + DIVERT 75 WG, BRAWLER + PENDULUM** or **BRAWLER + DIFFLAN** on fields where the wheat might grow under stress (e.g. fields that are prone to water logging, frost prone areas, very low temperatures, drought or when the soil is known to have high population levels of nematodes).
- Do not apply the spray mixture directly onto wheat seed.
- Do not allow the wheat seed to germinate on the surface of the soil. It should be covered by 2 – 3 cm of soil before the application of **BRAWLER + DIVERT 75 WG** is made.
- Under certain conditions, crop damage may occur. See “Application Rates”, “Remarks”, “Notes” and “Crop Damage”.
- **BRAWLER** applied on its own or in combination with **DIVERT 75 WG, DIFFLAN** or **PENDULUM** may cause retarded crop emergence, chlorosis (yellowing) or a reduction in the crop stand. However, the crop should recover without any adverse effect on the yield.
- **BRAWLER** can only be applied if planting is performed using an Ausseeder or similar planter.
- **BRAWLER** must not be applied directly onto the Wheat / Barley seed. Ensure that the seed is covered with a layer of 20 – 30 mm of soil after planting and before application.
- The planting speed should be 5 – 6 km / hour. Ideally, the planter speed should be such that the planter throws soil over the area in between the rows, but not onto the adjacent row as this may cause damage to crops.
- Soil covered with organic material (e.g. stubble) or other structures (such as stones) that may intercept the spray droplets, will result in sub-optimal weed control.
- Where minimum tillage is practiced, the stubble should be burned before planting.
- Any weeds that have emerged before planting should be pre-sprayed with a suitable herbicide. Refer to the relevant registered product label for instructions on use.
- Apply the product strictly in accordance with the application directions.
- Do not contaminate any water body such as dams, rivers, boreholes etc.

In order to avoid injury to subsequent crops, the following re-cropping intervals should be observed:

Crop	BRAWLER + DIVERT 75 WG (months)
Wheat	0
Canola	11
All other crops	24

Note: The above mentioned waiting periods will only be valid if the correct quantity of **BRAWLER** has been applied according to the label application recommendations. **A test planting is always recommended.** When applying **BRAWLER + DIVERT 75 WG**, the re-cropping intervals of **DIVERT 75 WG**, **PENDULUM** and **DIFFLAN** should be adhered to. Refer also to the **DIVERT 75 WG**, **PENDULUM** and **DIFFLAN** labels.

- 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, **BRAWLER** is a group code N herbicide. Any weed population may contain individuals naturally resistant to **BRAWLER** and other Group Code N herbicides. These resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **BRAWLER** or any other Group Code N herbicides.

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.
- Maintain herbicide use records for each field.
- Prevent the movement of resistant weed seeds and vegetation to other fields by cleaning harvesting and tillage equipment and by planting clean seed.
- When grazing, start with lands with the lowest weed resistance before moving to lands with a high resistance as the animals may spread the seed.
- Inspect all lands annually in order to identify the development of resistance from an early stage.

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 **BRAWLER** not controlling resistant weeds. Do not apply **BRAWLER** alone in situations where weed resistance has been confirmed. Sub-standard application of **BRAWLER** 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 herbicide-resistant weeds timeously.

- Always use **BRAWLER + DIVERT 75 WG**, **BRAWLER + DIFFLAN** and **BRAWLER + PENDULUM** as part of an integrated crop and resistance management program in order to prevent weed resistance.
- This crop and resistance management strategy should always include sequences with herbicides of alternative modes of action.
- **BRAWLER + DIVERT 75 WG**, **BRAWLER + DIFFLAN** and **BRAWLER + PENDULUM** should only be used once a year per field. If it becomes necessary to spray escapee target weeds, the application of herbicides from another chemical class is recommended.
- In order to control and eliminate resistant grasses (such as ryegrass), the aim should be total prevention of seeding by these resistance biotypes.
- **BRAWLER + DIVERT 75 WG**, **BRAWLER + DIFFLAN** and **BRAWLER + PENDULUM** should be used as a tool to manage grass weed populations in order to:
 - Prevent / delay resistance to products of various chemical classes.
 - Control various levels of resistance to different products and chemical classes e.g. mainly class A ("Fops" and "Dims") and class B (Sulfonylureas)

A local farm strategy for preventing and managing resistance and high seed bank build-up should be adopted. Guidelines have been produced by the Herbicide Resistance Action Group (HRAC) and copies are available from HRAC, your distributor or agents, independent crop advisor or Meridian Agritech.

GENERAL INFORMATION

- **BRAWLER** is specifically aimed at the control of annual Ryegrass (*Lolium* spp.) resistant to the post-emergence grass herbicides (“fops” and “dims”) and the sulfonyl urea herbicides in Wheat and Barley in the Western and Southern Cape.
- **DIVERT 75 WG, DIFFLAN** or **PENDULUM** can be added to the tank mixture for improved control of broadleaf weeds. Refer to “**APPLICATION RATES**” below.

MODE OF ACTION

BRAWLER is a selective herbicide that is absorbed by the leaves and roots and acts by inhibiting growth in the meristematic region. This causes dark greening, twisting, inhibition of shoots and roots, and a failure of leaf emergence coleoptiles.

DIRECTIONS FOR USE

Use only as directed.

COMPATIBILITY

The compatibility of **BRAWLER** 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 **BRAWLER** with any products not listed in this label. **BRAWLER** is compatible with **DIVERT 75 WG, DIFFLAN, PENDULUM**.

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

Consult a Meridian Agritech representative for details.

MIXING AND APPLICATION INSTRUCTIONS

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

When a tank mixture of **BRAWLER** and **DIVERT 75 WG, PENDULUM** or **DIFFLAN** is made, the **DIVERT 75 WG, PENDULUM** or **DIFFLAN** must be added first. This must be well-mixed and in suspension before **BRAWLER** is added.

Ensure constant and thorough agitation during mixing and spray operations.

APPLICATION METHODS

Apply **BRAWLER + DIVERT 75 WG, BRAWLER + PENDULUM** or **BRAWLER + DIFFLAN** at planting, or within 2-3 days after planting, but definitely before crop and weed emergence.

Ensure that the equipment is correctly calibrated with appropriate, correctly spaced nozzles and an efficient agitation mechanism. Ensure that the application equipment is checked regularly during application to ensure even and accurate application. Ensure uniform coverage.

Prepare a fine, even and firm seedbed free of clods, weeds, stones and trash.
Apply evenly onto the soil surface in at least 200 l water per hectare.
Prevent overlapping of sprays as this will increase the risk of crop damage.

Rain / irrigation after application is necessary for the activation of **BRAWLER + DIVERT 75 WG, BRAWLER + PENDULUM** and **BRAWLER + DIFFLAN**.

In cases of extremely high weed pressure, reduced efficacy may occur.

Ground application:

BRAWLER + DIVERT 75 WG, BRAWLER + PENDULUM or **BRAWLER + DIFFLAN** can be applied using any medium or high volume sprayer equipped with an efficient agitation mechanism and which is

capable of adequate and even coverage. The best results are obtained using flat fan-type spray nozzles and applying a minimum spray volume of 200 l water per hectare. The choice and arrangement of the flat fan-type nozzles should be such as to ensure even distribution and optimal recovery of the herbicide.

RECOMMENDATIONS: WINTER RAINFALL REGION

CROP	APPLICATION RATE / ha	REMARKS
Wheat and Barley	<p>3 l BRAWLER + 30 g / ha DIVERT 75 WG</p> <p>OR</p> <p>2 l / ha BRAWLER + 800 ml / ha PENDULUM</p> <p>OR</p> <p>3 l / ha BRAWLER + 200 ml / ha DIFFLAN</p>	<p>Ensure that the information under “DIRECTIONS FOR USE” is adhered to.</p> <p>All treatments should be applied pre-plant and pre-emergence of crops and weeds.</p>

NOTE

- Care should be taken to cover the wheat and Barley seed completely with 2-3 cm of soil after planting and before application.
- Follow the recommendations of the **DIVERT 75 WG**, **PENDULUM** and **DIFFLAN** labels carefully.
- Weeds that have germinated at the time of application will not be controlled.
- **BRAWLER + DIVERT 75 WG**, **BRAWLER + PENDULUM** and **BRAWLER + DIFFLAN** should be used as part of an appropriate management strategy, including sequences with herbicides with alternative modes of action such as “fops” and “dms”.
- Application of **BRAWLER + DIVERT 75 WG**, **BRAWLER + PENDULUM** and **BRAWLER + DIFFLAN** is recommended pre-emergence of both the crop and of the weeds.
- The use of **BRAWLER + DIVERT 75 WG**, **BRAWLER + PENDULUM** and **BRAWLER + DIFFLAN** can also be recommended for the pre-emergence control of ALS / ACCase resistant grasses such as *Lolium* spp and general broadleaf weeds.
- **BRAWLER + DIVERT 75 WG**, **BRAWLER + PENDULUM** or **BRAWLER + DIFFLAN** should preferably be applied at planting or within 2-3 days after planting.
- Wheat seed should be adequately covered by 2 – 3 cm of soil after planting or sowing.

Crop damage:

- **BRAWLER + DIVERT 75 WG**, **BRAWLER + PENDULUM** and **BRAWLER + DIFFLAN** applied pre-emergence may slow crop emergence, reduce the crop stand or cause yellowing. These effects are transient, the crop recovers quickly and should not have any adverse effect on the crop yield.
- The recovery can be attributed to the ability of the crop to compensate by increased tillering and ear numbers.
- **BRAWLER + DIVERT 75 WG**, **BRAWLER + PENDULUM** and **BRAWLER + DIFFLAN** may result in crop damage or stand reductions:
 - Under wet and cold conditions, especially following excessive rain (> 40 mm).

- When seeds germinate on the surface of the soil (inadequate coverage or incorporation when seeding).
- Damage may be more pronounced if the seeds have been planted too shallow, without an adequate soil layer above the seeds.
- The possibility of crop damage is greatly reduced when the wheat seed is planted with a wheat planter. Crop damage may be more frequent when the seed is sown using broadcasting, especially when the seed is inadequately covered by soil after sowing.
- Various external factors such as high rainfall or cold weather snaps would cause increased herbicidal damage. In these cases, herbicidal damage cannot be attributed only to the application of **BRAWLER + DIVERT 75 WG**, **BRAWLER + PENDULUM** and **BRAWLER + DIFFLAN**

WEEDS NORMALLY CONTROLLED

3 ℓ BRAWLER + 30 g / ha DIVERT 75 WG

Scientific name	Common name
<i>Cotula australis</i>	Brass buttons
<i>Lolium spp.</i>	Ryegrass
<i>Raphanus raphanistrum</i>	Wild radish
<i>Chenopodium album</i>	White goosefoot
<i>Anagallis arvensis</i>	Pimpernel
<i>Fumaria sp.</i>	Fumitory
<i>Emex australis</i> (65 – 90%)	Spiny emex

Refer to the label of **DIVERT 75 WG** for a list of additional weed species which may be controlled by this treatment.

2 ℓ / ha BRAWLER + 800 mℓ / ha PENDULUM

Scientific name	Common name
<i>Lolium spp.</i>	Ryegrass
<i>Raphanus raphanistrum</i>	Wild radish

Refer to the label of **PENDULUM** for a list of additional weed species which may be controlled by this treatment.

3 ℓ / ha BRAWLER + 200 mℓ / ha DIFFLAN

Refer to the label of **DIFFLAN** for the list of weeds which are controlled by this treatment.

ACKNOWLEDGEMENT OF TRADEMARKS

Diffan	(L.8313)	Meridian Agrochemical Company (Pty) Ltd
Divert 75 WG	(L. 8132)	Meridian Agrochemical Company (Pty) Ltd
Pendulum	(L. 9462)	Meridian Agrochemical Company (Pty) Ltd

WAARSKUWINGS

Onthoudingsperiodes (minimum aantal dae tussen laaste toediening en oes of beweiding):

Koring en Gars: Laat ten minste 84 dae tussen laaste toediening en oes of beweiding toe. Indien dit in kombinasie met **DIFFLAN** toegedien word, moet 'n periode van ten minste 120 dae tussen toediening en oes of beweiding toegelaat word.

NOTA: Die aanbevole onthoudingsperiodes tussen laaste toediening en oes voldoen aan die vereistes vir plaaslike residuvlakke, maar mag dalk nie aan vereistes vir uitvoer voldoen nie.

- Skadelik indien ingesluk: Indien ingesluk, **verkry onmiddellik mediese advies** en wys hierdie etiket of houer.
- Hanteer versigtig.
- Mag ernstige oogskade veroorsaak.
- Kan oë en vel irriteer.
- Herhaaldelike blootstelling mag droogheid en gebarste vel veroorsaak.
- Dra geskikte oog- en velbeskerming.
- Mag asemhalingsstelsel irriteer.
- **Skadelik:** Mag longskade veroorsaak indien ingesluk.
- Damp mag lomerigheid en duiseligheid veroorsaak.
- Baie giftig vir waterlewe en mag langtermyn negatiewe uitwerking op die omgewing hê. Gebruik aanvaarbare en geskikte opberging om omgewingsbesoedeling te vermy.
- Gebruiksaanwysings moet nagekom word om risikos vir mens en die omgewing te vermy.
- Bêre agter slot-en-grendel in 'n koel, droë, goed-geventileerde area, weg van voedsel, voer, saad en kunsmis.
- Bêre in die oorspronklike, digsluitende houer weg van sonlig en klammigheid.
- Hou buite bereik van kinders, diere en oningeligte persone.
- Moenie bo-oor water of aangrensende gebiede spuit nie, of toelaat dat spuitnewel daarheen oorwaai en die gebiede besoedel nie.
- **Herbetreding:** Moet nie behandelde gebied betree alvorens die spuitneerslag droog is nie, tensy beskermende oorklere gedra word.
- **BRAWLER** is sonder enige fitotoksiteitskade op die mees belangrikste kommersiële kultivars getoets. Meer vatbare kultivars mag in die toekoms vrygestel word wat eers getoets moet word; hiervoor moet **BRAWLER** 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. Die werking en doeltreffendheid daarvan kan beïnvloed word deur faktore soos abnormale grond-, klimaats- en bergingstoestande; kwaliteit van verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui word nie en die voorkoms van weerstand van die onkruide teen die betrokke middel, sowel as die metode, tyd en akkuraatheid van die toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of vir nadelige invloede 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.

VOORSORGMATREËLS

- Moet nie oppervlakwater of slote met enige chemikalieë of gebruikte houers besoedel nie.
- Moet nie dampe of sproeinewel inasem nie.
- Verhoed kontak van die vel, oë en klere met die konsentraat of spuitmengsel.
- Dra beskermende oorklere (ondeurdringbare handskoene, oorpakke, oë- en gesigbeskerming, hoed/pet en soliede stewels) terwyl produk hanteer word.
- Was met seep en water na gebruik.
- Vermy langdurige en herhaaldelike blootstelling aan die sproeinewel.
- Moet nie rook, eet of drink terwyl hierdie produk hanteer word nie, of voordat hande en gesig gewas is en klere aangetrek is nie.
- Voorkom besoedeling van voedsel, voer, drinkwater en eetgerei.
- Beskermende toerusting en besoedelde klere moet na gebruik deeglik gewas word.
- Spoel die leë houer drie keer uit soos volg: Keer die leë houer om oor die spuittenk of mengbak

en dreineer vir ten minste 30 sekondes nadat die vloei tot 'n drup verminder het. Spoel die houer hierna drie keer uit met 'n volume water wat gelykstaande is aan 'n minimum van 10% van die inhoud van die houer. Gooi die spoelwater by die inhoud van die spuittenk voordat die leë houer op die voorgeskrewe manier vernietig word.

- Verhoed wegdrywing van die spuitnewel na ander gewasse, weiding, riviere, damme en areas wat nie onder behandeling is nie.
- Maak alle spuittoerusting deeglik skoon na gebruik en raak ontslae van die spoelwater waar dit nie die omgewing, gewasse, weidings, riviere of damme sal besoedel nie.
- Vernietig die leë houer deur gate daarin te maak, plat te slaan en op 'n veilige manier, volgens plaaslike regulasies, daarvan ontslae te raak. Moet dit vir geen ander doel gebruik nie.

SIMPTOME VAN MENSLIKE VERGIFTIGING

Hierdie produk sal die vel irriteer en droogheid en gebarste vel veroorsaak. Mag lugweg-irritasie veroorsaak, asook lomerigheid en duiseligheid. Die oplosmiddel in die produk mag longskade veroorsaak.

NOODHULPBEHANDELING

Hou die produkhouer, etiket of veiligheidsdatablad byderhand wanneer 'n gifbeheersentrum of geneesheer geskakel word, of indien vir behandeling gaan.

Oë: Spoel oë met groot hoeveelhede skoon water vir ten minste 20 minute uit, terwyl ooglede oopgehou word. Verwyder kontaklense indien teenwoordig. **Verkry onmiddellik mediese bystand.**

Vel: Verwyder onmiddellik alle besoedelde klere. Was vel met genoegsame seep en water. Verkry mediese hulp indien irritasie voorkom en aanhou. Was besoedelde klere voor hergebruik.

Ingesluk: **Moet nie braking induseer nie.** Moet nooit iets per mond vir 'n bewustelose persoon ingee nie. Indien braking voorkom, hou die pasiënt se kop laer as sy heupe om aspirasie te verhoed. **Verkry onmiddellik mediese bystand en toon die houer of etiket.**

Inaseming: Verwyder die pasiënt na gebied met vars lug en hou hom/haar kalm, rustig en gerusgestel. Indien asemhaling moeilik of ongereeld is of opgehou het, pas kunsmatige asemhaling toe. **Verkry mediese bystand.**

NOTA AAN GENEESHEER

Hierdie produk bevat 'n koolwaterstofoplosmiddel. Geen teenmiddel is beskikbaar nie; behandel simptome en ondersteunend.

GEBRUIKSBEPERKINGS

- Moenie tenkmengsels van **BRAWLER + DIVERT 75 WG, BRAWLER + PENDULUM** of **BRAWLER + DIFFLAN** toedien op lande waar koring onder strestoestande mag groei nie (bv lande wat geneig is om te versuip, lande wat maklik ryp kry, baie lae temperature, droogtes of gronde met hoë aalwurmbesmetting).
- Moenie spuitmengsel direk op die koringsaad toedien nie.
- Moet nie toelaat dat die koringsaad op die grondoppervlakte ontkiem nie. Dit moet met 2 – 3 cm grond bedek wees voordat **BRAWLER + DIVERT 75 WG** toegedien word.
- Onder sekere omstandighede mag gewasskade voorkom. Sien "Aanbevelings", "Opmerkings", "Notas" en "Gewasskade".
- Indien **BRAWLER** op sy eie of in kombinasie met **DIVERT 75 WG, DIFFLAN** of **PENDULUM** toegedien word mag dit vertraagde gewasopkoms, chlorose (vergeling) of 'n verminderde gewasstand tot gevolg hê. Die gewas sal egter herstel sonder enige nadelige invloed op die oesopbrengs.
- **BRAWLER** kan slegs toegedien word indien aanplantings met 'n Ausseeder of soortgelyke planter gedoen word.
- **BRAWLER** moet nie direk op Koring/Gars saad toegedien word nie. Verseker dat die saad met 'n lagie grond van 20 – 30 mm bedek is voor bespuiting plaasvind.
- Die spoed tydens plant moet 5 – 6 km/uur wees. Die plantspoed moet ideaal so wees dat die planter grond oor die area tussen die rye gooi, maar nie op die aangrensende rye nie, aangesien dit skade aan die gewasse kan veroorsaak.
- Grond wat met organiese materiaal (bv. stoppels) of ander komponente (soos klippe) bedek is, wat die sporeidruppels kan onderskep, sal swak onkruidbeheer tot gevolg hê.
- Waar minimum bewerking toegepas word, moet stoppels voor aanplanting verbrand word.

- Enige onkruid wat voor-plant opgekom het, moet vooraf met 'n geskikte onkruiddoder gespuit word. Verwys na die toepaslike geregistreerde produk se etiket vir gebruiksaanwysings.
- Dien die produk streng volgens die toedieningsriglyne toe.
- Moet nie enige waterbronne soos damme, riviere, boorgate ens. besoedel nie.

Om skade aan opvolggewasse te verhoed, moet die volgende wagperiodes nagekom word:

GEWAS	BRAWLER + DIVERT 75 WG (maande)
Koring	0
Kanola	11
Ander gewasse	24

Nota: Die bogenoemde wagperiodes sal slegs geldig wees indien die korrekte hoeveelheid **BRAWLER** volgens die aanbevelings op die etiket toegedien word. 'n **Plantingstoets word altyd aanbeveel. Wanneer BRAWLER + DIVERT 75 WG** toegedien word, moet die wagperiodes van **DIVERT 75 WG, PENDULUM** en **DIFFLAN** nagekom word. Verwys ook na die etikette van **DIVERT 75 WG, PENDULUM** en **DIFFLAN**.

- Moet nie hierdie produk op enige gewas of situasie toedien wat nie op hierdie etiket verskyn 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 (Pty.) Ltd. 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 **BRAWLER** 'n groep N onkruiddoder. Enige onkruidpopulasie mag sekere individue bevat wat natuurlike weerstand teen **BRAWLER** en ander groepkode N onkruiddoders het. Hierdie weerstandbiedende individue kan uiteindelik die onkruidpopulasie oorheers indien hierdie onkruiddoders herhaaldelik aangewend word. Hierdie weerstandbiedende onkruid mag waarskynlik nie deur **BRAWLER** of enige ander groepkode N onkruiddoders beheer word nie.

Om weerstand teen onkruiddoders te verhoog:

- Vermyn die eksklusiewe herhaaldelike gebruik van onkruiddoders met dieselfde groepkode. Wissel af met, of gebruik tenkingsels van, produkte in verskillende onkruiddodergroepcodes.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in onkruiddoderprogramme
- Hou rekord van onkruiddoder-gebruik van elke land.
- Die verspreiding van weerstandbiedende onkruidsaad en plantegroei na ander lande moet verhoed word deur die skoonmaak van oes- en bewerkingstoerusting en deur onkruidvrye saad te plant.
- Met beweiding, begin by lande met die laagste onkruidweerstand alvorens na lande met hoë weerstand beweeg word, om sodoende die verspreiding van saad deur diere te verhoed.
- Alle landerye moet jaarliks ondersoek word om moontlike weerstand vroegtydig te identifiseer.

Vir spesifieke inligting oor weerstandsbestuur moet die registrasiehouer van hierdie produk gekontak word.

Die teenwoordigheid van weerstandbiedende onkruid is moeilik om voor gebruik te bepaal en gevolglik kan nog die Registrasiehouer of die Verspreider verantwoordelikheid aanvaar vir enige verlies wat veroorsaak is deurdat **BRAWLER** nie weerstandbiedende onkruid beheer nie. Moenie **BRAWLER** op sy eie in omstandighede waar onkruidweerstand bekend is, gebruik nie. Sub-standaard toedienings van **BRAWLER** sal tot swak onkruidbeheer lei en onkruiddoderweerstand aanmoedig. Dit is uiters belangrik om behandelde gebiede met gereelde intervalle te ondersoek om sodoende die bestaan van weerstandbiedende onkruid betyds te identifiseer.

- Gebruik altyd **BRAWLER + DIVERT 75 WG, BRAWLER + DIFFLAN** en **BRAWLER + PENDULUM** as deel van 'n geïntegreerde gewas- en weerstandbiedendheidsbestuursprogram om onkruidweerstandbiedendheid te voorkom.
- Hierdie gewas- en weerstandbiedendheidsbestuursprogram moet onkruiddoders met verskillende metodes van werking insluit.
- **BRAWLER + DIVERT 75 WG, BRAWLER + DIFFLAN** en **BRAWLER + PENDULUM** moet slegs een keer per jaar per land gebruik word. Indien dit nodig sou wees om onkruid wat nie beheer is nie, te spuit, gebruik onkruiddoders van 'n ander chemiese klas.

- Om weerstandbiedende grasse (soos raaigras) te beheer en te elimineer, moet die doel wees om plante, van veral hierdie weerstandbiedende populasie, te verhoed om enigsins saad te stort.
- **BRAWLER + DIVERT 75 WG, BRAWLER + DIFFLAN en BRAWLER + PENDULUM** moet gebruik word om graspopulasies te bestuur sodat:
 - Weerstandbiedendheid teen verskillende produkte van verskillende chemiese groepe verhoed of vertraag sal word.
 - Verskillende grade van weerstandbiedendheid teenoor verskillende produkte of chemiese klasse van produkte bv. hoofsaaklik klas A (“Fops” en “Dims”) en klas B (Sulfonielureas) beheer kan word.

‘n Plaaslike plaasstrategie vir die voorkoming en bestuur van weerstandbiedendheid moet ontwikkel word. Riglyne is deur die “Herbicide Resistance Action Group (HRAC)” ontwikkel en voorskrifte is beskikbaar by HRAC, jou verspreider, agente, onafhanklike gewasspesialiste of Meridian Agritech.

ALGEMENE INLIGTING

- **BRAWLER** is spesifiek gerig op die beheer van eenjarige Raaigras (*Lolium* spp.) wat weerstandbiedend is teenoor na-opkoms grasonkruidodders (“fops” and “dims”) en die sulfonielureumonkruidodders in Koring en Gars in die Wes- en Suid-Kaap.
- **DIVERT 75 WG, DIFFLAN** of **PENDULUM** kan by die tenkmengsel gevoeg word om beter beheer van breëblaaronkruid te verkry. Verwys na “**TOEDIENINGSDOSISSE**” hieronder.

METODE VAN WERKING

BRAWLER is ‘n selektiewe onkruidodder wat deur die blare en wortels geabsorbeer word en plantgroei in die meristematische gebied inhibeer. Dit veroorsaak donkergroen, verdraaide, verkleinde lote en wortels, asook verlies van blaarverskynende koleoptiele.

GEBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

VERENIGBAARHEID

Die verenigbaarheid van **BRAWLER** met ander produkte hang van die formulering van die betrokke produkte af, asook die kwaliteit van die spuitwater wat gebruik word. Deurdat formulering van tyd tot tyd kan verander, word dit aanbeveel dat ‘n fisiese verenigbaarheidstoets uitgevoer word, voordat die tenkmengsel gemaak word. Moet nie **BRAWLER** met enige ander produkte wat nie in hierdie etiket verskyn, meng nie. **BRAWLER** is met **DIVERT 75 WG, DIFFLAN en PENDULUM** verenigbaar.

Wanneer ander produkte met **BRAWLER** in ‘n spuitprogram gebruik word, moet die etiketvoorskrifte van daardie produkte vir die aanwysings en beperkinge van die toediening en gewasrotasie-aanbevelings altyd eers nagegaan word.

‘n Meridian Agritech verteenwoordiger moet vir besonderhede geraadpleeg word.

MENG- EN TOEDIENINGSINSTRUKSIES

Maak die tenk halfvol met geskikte water en voeg die verlangde hoeveelheid **BRAWLER** by, terwyl die water in die tenk geroer word. Maak die spuittenk tot die verlangde volume vol. Indien tenkmengsels met ander produkte gemaak word, moet die onderskeie vervaardigers se etiketvoorskrifte gevolg word. **Tenkmengsels moet onmiddellik uitgespuit word en nie toegelaat word om oornag te staan nie.** Spuittoerusting moet deeglik na gebruik skoon gespoel word.

Wanneer ‘n tenkmengsel met **BRAWLER en DIVERT 75 WG, PENDULUM of DIFFLAN** gemaak word, moet die **DIVERT 75 WG, PENDULUM of DIFFLAN** eerste bygevoeg word. Dit moet deeglik gemeng word voordat **BRAWLER** by hierdie suspensie gevoeg word.

Konstante en deeglike roering moet gedurende die meng- en spuitproses verseker word.

TOEDIENINGSMETODES

Dien **BRAWLER + DIVERT 75 WG, BRAWLER + PENDULUM** of **BRAWLER + DIFFLAN** tydens plant toe, of binne 2-3 dae na plant, maar steeds voor die opkoms van die gewas en onkruid.

Verseker dat die toerusting korrek gekalibreer is en geskikte, korrek gespasiëerde spuitpunte met 'n effektiewe roermeganisme besit. Verseker dat die spuittoerusting gereeld gedurende toediening nagegaan word om egalige en akkurate toediening te verseker. Verseker egalige bedekking.

Berei 'n fyn, gelyk en ferm saadbed voor, vry van kluite, onkruid, klippe en gemors.
Dien eweredig oor die grondoppervlakte in minstens 200 l water per hektaar toe.
Verhoed dat oorvleueling van spuitbane plaasvind, want dit sal die risiko van gewasskade verhoog.

Reënval/besproeiing na toediening is noodsaaklik vir die aktivering van **BRAWLER + DIVERT 75 WG**, **BRAWLER + PENDULUM** en **BRAWLER + DIFFLAN**.

Grondtoediening:

BRAWLER + DIVERT 75 WG, **BRAWLER + PENDULUM** of **BRAWLER + DIFFLAN** kan met enige medium of hoë-volume spuittoerusting toegedien word met 'n effektiewe roermeganisme wat voldoende en egalige bedekking sal verseker. Die beste resultate word verkry met die gebruik van platwaaierspuitkoppe in 'n minimum spuitvolume van 200 l water per hektaar. Die keuse en plasing van die platwaaierspuitkoppe moet van so 'n aard wees dat dit die beste bedekking en herwinning van die onkruid doders sal verseker.

AANBEVELINGS: WINTERREËNVALSTREEK

GEWAS	DOSIS / ha	OPMERKINGS
Koring en Gars	<p>3 l BRAWLER + 30 g / ha DIVERT 75 WG</p> <p>OF</p> <p>2 l / ha BRAWLER + 800 ml / ha PENDULUM</p> <p>OF</p> <p>3 l / ha BRAWLER + 200 ml / ha DIFFLAN</p>	<p>Verseker dat die inligting onder "GEBRUIKSAANWYSINGS" nagekom word.</p> <p>Alle behandelings moet voorplant en vooropkoms van die gewas en onkruid toegedien word.</p>

NOTA

- Voorsorg moet getref word om te verseker dat die Koring- en Garssade heeltemal met 2-3 cm grond bedek is na plant en voor bespuiting plaasvind.
- Volg die aanbevelings op die **DIVERT 75 WG**, **PENDULUM** en **DIFFLAN** etikette noukeurig.
- Onkruid wat tydens toediening alreeds ontkiem het, sal nie beheer word nie.
- **BRAWLER + DIVERT 75 WG**, **BRAWLER + PENDULUM** en **BRAWLER + DIFFLAN** moet as deel van 'n toepaslike bestuursprogram gebruik word, insluitende opvolgbespuitings met onkruid doders wat ander metodes van werking besit soos "fops" en "dime".
- Die toediening van **BRAWLER + DIVERT 75 WG**, **BRAWLER + PENDULUM** en **BRAWLER + DIFFLAN** word as vooropkoms vir beide die gewas en onkruid aanbeveel.
- Die gebruik van **BRAWLER + DIVERT 75 WG**, **BRAWLER + PENDULUM** en **BRAWLER + DIFFLAN** kan ook aanbeveel word vir die vooropkomsbeheer van "ALS/ACCASE" weerstandbiedende grasse soos *Lolium* spp en algemene breëblaaronkruid.
- **BRAWLER + DIVERT 75 WG**, **BRAWLER + PENDULUM** of **BRAWLER + DIFFLAN** moet verkieslik tydens plant of 2-3 dae na plant toegedien word.
- Koringsaad moet ten alle tye met 2-3 cm grond na plant of saai bedek wees.

Gewasskade:

- **BRAWLER + DIVERT 75 WG**, **BRAWLER + PENDULUM** en **BRAWLER + DIFFLAN** wat vooropkoms toegedien is, mag soms die gewas se ontkieming vertraag, stand verminder of vergelyk veroorsaak. Hierdie effek is tydelik en die gewas herstel gewoonlik vinnig en die oesopbrengs sal nie nadelig beïnvloed word nie.

- Hierdie herstel word toegeskryf aan die vermoë van die gewas om te kompenseer deur meer te stoel en dus meer are te produseer.
- **BRAWLER + DIVERT 75 WG, BRAWLER + PENDULUM** en **BRAWLER + DIFFLAN** mag gewasskade en verminderde stand teweegbring onder:
 - Nat en koue toestande, veral na oormatige reënbuie (> 40 mm).
 - Toestande waar die sade bo-op die grondoppervlakte ontkiem (onvoldoende grondbedekking tydens die plantproses).
- Gewasskade mag meer opvallend voorkom as sade te vlak geplant is, sonder die voldoende grondlaag bo-oor die saad.
- Die moontlikheid van gewasskade word grootliks verminder wanneer saad met 'n planter geplant word. Meer gewasskade mag voorkom indien gesaai word, veral as die toekrap-proses nie die saad behoorlik met grond bedek nie.
- Verskeie eksterne faktore soos hoë reënval en koue weerstoestande kan verhoogde onkruidoderskade veroorsaak. In sulke gevalle kan onkruidoderskade nie net aan die toediening van **BRAWLER + DIVERT 75 WG, BRAWLER + PENDULUM** en **BRAWLER + DIFFLAN** toegeskryf word nie.

ONKRUIDE NORMAALWEG BEHEER

3 ℓ BRAWLER + 30 g / ha DIVERT 75 WG

Wetenskaplike naam	Gewone naam
<i>Cotula australis</i>	Cotula
<i>Lolium spp.</i>	Raaigras
<i>Raphanus raphanistrum</i>	Ramenas
<i>Chenopodium album</i>	Withondebossie
<i>Anagallis arvensis</i>	Pimpernel
<i>Fumaria sp.</i>	Duiwekerwel
<i>Emex australis</i> (65 – 90%)	Kaapse dubbeltjie

Verwys na die **DIVERT 75 WG** etiket vir 'n lys van addisionele onkruidspesies wat deur hierdie toediening beheer mag word.

2 ℓ / ha BRAWLER + 800 mℓ / ha PENDULUM

Wetenskaplike naam	Gewone naam
<i>Lolium spp.</i>	Raaigras
<i>Raphanus raphanistrum</i>	Ramenas

Verwys na die **PENDULUM** etiket vir 'n lys van addisionele onkruidspesies wat deur hierdie toediening beheer mag word.

3 ℓ / ha BRAWLER + 200 mℓ / ha DIFFLAN

Verwys na die **PENDULUM** etiket vir 'n lys van onkruidspesies wat deur hierdie toediening beheer mag word.

ERKENNING VAN HANDELSMERKE

Diffan (L.8313)
 Divert 75 WG (L. 8132)
 Pendulum (L. 9462)

Meridian Agrochemical Company (Pty.) Ltd.
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