# DIRECTIONS FOR USE ENCLOSED Batch Number:

# Herbicide



# DISGRAN 750 WDG

Reg. No. L 7473 Act No. 36 of 1947

4:21/7/2022 - Nov2022



A selective water-dispersible granular herbicide, packed in watersoluble bags, for the control of broadleaf weeds as indicated in wheat, oats and barley in the Western and Eastern Cape and wheat in the Free State.

#### **ACTIVE INGREDIENT**

triasulfuron (sulfonylurea)

750 g/kg

**GROUP** 

2

**HERBICIDE** 



#### Hazard Statements:

May be harmful if swallowed. May be harmful in contact with skin.

Causes skin irritation.

#### **Precautionary Statements:**

Wash hands thoroughly after handling.

Do not touch eyes.

Avoid release to the invironment.



Registration holder: VILLA CROP PROTECTION (PTY) LTD.
Co. Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630
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24 HR EMERGENCY NUMBERS: Griffon Poison Centre: +27 82 446 8946 24 HR Transport / Spill Emergency no: (Hazcall24) +27 86 044 4411 (Client: Villa Crop Protection)

#### **DISGRAN 750 WDG**

Reg. No. L7473 Act No. 36 of 1947 HRAC HERBICIDE GROUP CODE: 2

#### **ACTIVE INGREDIENT:**

Registration holder: VILLA CROP PROTECTION (PTY) LTD. Co. Reg. No. 1992/002474/07. PO Box 10413, ASTON MANOR, 1630 Tel. (011) 396 2233

## **WARNINGS**

#### **Hazard statements:**

May be harmful if swallowed.	
May be harmful in contact with skin.	
Causes skin irritation.	
Causes serious eye damage.	
Very toxic to aquatic life.	
Very toxic to aquatic life with long lasting effects.	

- Store in a cool, dry, well-ventilated place in the original container, tightly closed and secured.
- Store away from food, feeds, seed, fertilizers and other agricultural chemicals.
- Keep out of reach of children, uninformed persons and animals.

IF ON SKIN: Wash with plenty of water and non-abrasive soap.

Re-entry: Do not enter treated area until spray deposit has dried unless wearing protective clothing.

#### **Aerial Application:**

- Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings.
- Do not spray over or allow drift to contaminate water or areas not under treatment.
- NOTE
  - **DISGRAN 750 WDG** is a highly active herbicide that in small quantities, when used incorrectly, can cause serious damage to crop seedlings, deciduous fruit trees and grape vines, during the budding and early season growth stages.
- Under the following conditions it can cause serious damage as far as 3 to 5 km from the nearest spray
  path of the aircraft: Cloudy weather with relative humidity above 80 % and low air movement of less than
  5 km per hour.
- When such conditions prevail, aerial application should NOT be carried out where crop seedlings, deciduous fruit trees and grape vines in budding or early development stages are present within 5 km of the nearest spray path of the aircraft.

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

#### **PRECAUTIONS**

## Precautionary statements

Wash hands thoroughly after handling. Do not touch eyes.

Avoid release to the environment.

Wear impervious rubber gloves and boots, protective clothing, and chemical safety goggles.

IF SWALLOWED: Get medical help.

IF ON SKIN: Get medical help.

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IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation occurs: get medical help.

Take off contaminated clothing and wash it before reuse.

Collect spillage.

Dispose of contents/container in accordance with local regulations.

- Avoid inhalation of the spray mist.
- In case of eye contact, immediately flush the eyes with clean, gentle flowing lukewarm water for at least 20 minutes, holding the eyelid(s) open. If irritation persists, seek medical advice.
- Do not eat, drink or smoke whilst mixing or applying the product or before washing hands and face and change of clothing.
- Prevent drift of spray mist onto other crops, grazing, rivers, dams or areas not under treatment or to nearby water sources.
- Cleaning of Application Equipment: Special attention and care must be taken with cleaning of all
  equipment used in the mixing and application of DISGRAN 750 WDG, before using it for applications in
  other crops:
  - Drain the spray tank and rinse thoroughly with ample water. Flush the pipes, boom and nozzles of applicator with the water.
  - Drain the spray tank again and fill with clean water to 20 % of tank capacity, whilst thoroughly rinsing all inside surfaces of the spray tank.
  - Add 1 litre sodium hypochloride (5.2 %) per 200 litres water.
  - Bleed the system to ensure that all pipes, booms and nozzles are filled with the sodium hypochloride solution by spraying the solution through all nozzles for 1 minute.
  - Let the remaining rinsate solution circulate within the spraying system for at least 5 to 10 minutes.
  - Drain the spray tank and pipe system completely.
  - In order to remove traces of the tank cleaner, flush the spray tank thoroughly with clean water, rinsing all the inside surfaces. Spray this rinsate through the nozzles and drain system.
- **Do not** dispose the wash water where it will contaminate crops, grazing, rivers and dams and the root zone of desirable plants.
- TRIPLE RINSE EMPTY PLASTIC BAG AS FOLLOWS: Turn the bag inside out Hold the bag over the spray or mixing tank and rinse the bag with running water for thirty seconds. Shake the rinsate off into the tank. Repeat the rinsing twice. Cut the bag into pieces and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn of donate the bag to any other parties that may use it as container for foodstuffs.
- Prevent contamination of food, feed, drinking water and eating utensils.

Relevant hazardous components		
Triasulfuron technical 750 g/kg		
Auxiliaries (Sodium alkylbenzene sulfonate)	<10 %	

#### FIRST AID TREATMENT

- Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure. Immediately consult a doctor.
- **Inhalation:** Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs. Obtain medical attention if in doubt.
- **Skin:** Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Obtain medical attention if irritation persists.
- Eyes: Flush eyes with clean water for at least 15 to 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after five (5) minutes and continue rinsing. Obtain medical attention if irritation persists.
- **Ingestion:** Seek medical attention or call a poison control centre for treatment advice. Do not induce vomiting unless instructed to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.

#### **RESISTANCE WARNING**

**DISGRAN 750 WDG** is a group code 2 herbicide. Any weed population may contain individuals naturally resistant to **DISGRAN 750 WDG** and other group code 2 herbicides. The resistant individuals can eventually

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dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **DISGRAN 750 WDG** or any other group code 2 herbicide.

To delay herbicide resistance:

- avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or tank mix with 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.

#### **USE RESTRICTIONS**

- Do not use DISGRAN 750 WDG in cereal crops under sown with legumes.
- Do not use **DISGRAN 750 WDG** in wheat, barley or oats that are stressed by severe drought, flooding, disease or insect damage conditions.
- The use of **DISGRAN 750 WDG** in barley is restricted to the Western-, Southern- and Eastern Cape.
- Follow-up crops:
  - Low concentrations of DISGRAN 750 WDG in the soil may cause damage to crops other than wheat, oats or barley. Therefore, careful planning should take place with regard to crop rotation, prior to the application of DISGRAN 750 WDG.
  - After a **DISGRAN 750 WDG** post-emergence application, the following minimum pre-plant intervals\* for follow-up crops must be adhered to, in order to avoid injury to follow-up crops:

Wheat, Barley & Oats	6 months
Sweet and Bitter lupins, Peas & Canola	9 months
Medics, Clover & Lucerne	11 months
Any other crop	24 months, preceded by a test planting

(\* pre-plant interval = time period between the last application of **DISGRAN 750 WDG** and the anticipated date of planting of a follow-up crop).

Withholding periods: In case of pre-emergence application, allow at least 24 months between application and planting of any crops.

**Mode of action: DISGRAN 750 WDG** is a selective herbicide, absorbed by the leaves and roots, and rapidly translocated to meristems.

#### **NOTES**

- It is not recommended to use **DISGRAN 750 WDG** on soils with a pH (H<sub>2</sub>O) of 7 or higher, and/or on soils containing free lime. The residual effect of **DISGRAN 750 WDG** can be extended, adversely affecting crop rotation strategies beyond normally indicated intervals.
- The above-mentioned re-cropping waiting periods also depend on normal or above average rainfall during, and following, the growing season when the application was performed.
- **Metsulfuron-methyl's** re-cropping intervals must also be taken into consideration if it is to be used in a tank mixture with **DISGRAN 750 WDG**.

# **DIRECTIONS FOR USE:** Only use as indicated.

#### Pre-emergence application:

- Apply **DISGRAN 750 WDG** during or immediately after planting to a moist, fine, even, well prepared seedbed, free of weeds, without excessive clods, stones or stubble.
- Best results are obtained if the pre-emergence application of **DISGRAN 750 WDG** is followed by rain, shortly after application.
- Optimal results are obtained when all cultivation practices (including planting/sowing) are finished before application of **DISGRAN 750 WDG**.
- Sub-optimal control can be expected when **DISGRAN 750 WDG** is incorporated into the soil. In cases where **DISGRAN 750 WDG** has to be incorporated, the following must be kept in mind:
  - incorporation must be performed on dry, sandy soil, free from stones, clods and/or organic material (e.g. stubble),
  - do not incorporate deeper than 2.5 cm into the soil.
- The wind action of a sleeveboom sprayer must be disconnected if DISGRAN 750 WDG is applied with a sleeveboom sprayer.

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#### Post-emergence application:

- Best results will be obtained if DISGRAN 750 WDG is applied to young, actively growing weeds (seedling to 5 cm height) under moist conditions. Weeds affected by drought stress will be less susceptible. Sufficient rainfall, that carries the product into the root zone of germinating weeds, will ensure residual control of weeds germinating, after application of DISGRAN 750 WDG.
- Apply DISGRAN 750 WDG alone, or in tank mixture with Campatop 225 EC or Metsulfuron-methyl, to young weeds (preferably within one (1) month after emergence of the crop), to obtain maximum weed control or suppression.
- Apply DISGRAN 750 WDG in tank mixture with Campatop 225 EC in the Eastern Free State from early September after good rainfall, but only after the average temperature for three (3) consecutive days, exceeds 10 °C.
- The degree of control and duration of efficacy may differ according to the weed species and size, and growing conditions (e.g. soil pH, rainfall, soil organic content, etc.) during and following the time of application.
- The use of a suitable surfactant/penetrant in the spray mixture, will improve wetting and penetration of the leaf.
- Although the visible symptoms of dying weeds may not be visible before 1 to 3 weeks, DISGRAN 750
   WDG rapidly inhibits the growth and competition ability of susceptible weeds.

#### Compatibility:

- The compatibility of **DISGRAN 750 WDG** in a tank mixture with other products is influenced by the formulations of these products, as well as quality of the spray water. It is recommended that a physical compatibility test always be performed prior to application as the formulation of other products can be altered, and the quality of water can vary from area to area.
- DISGRAN 750 WDG has been found compatible with Campatop 225 EC, Metsulfuron-methyl, Trifluralin 480 EC and Wrestler 800 EC.

#### **Mixing Instructions:**

- Half fill the spray/mixing tank with clean water and ensure agitation. Add the recommended amount of DISGRAN 750 WDG water-soluble sachets to the tank. Fill the tank to the desired final volume whilst agitating.
- If **DISGRAN 750 WDG** is to be tank mixed with other agricultural chemicals, ensure that the **DISGRAN 750 WDG** is completely mixed and in suspension, before adding the other compounds.
- The spray mixture must be sprayed immediately after mixing and not be allowed to stand over for a prolonged period of time, e.g. overnight.

## **APPLICATION INSTRUCTIONS**

#### **Ground application:**

It is important that **DISGRAN 750 WDG** is applied with accurately calibrated spray equipment that is in good working order. **DISGRAN 750 WDG** can be applied with standard medium or high-volume spraying equipment, equipped with a good agitation system that can provide even distribution and sufficient coverage. It is recommended to apply at a spray volume of 200 litres per hectare, using flat fan nozzles to obtain best results. Ensure agitation of spray mixture during application.

### Aerial application:

Aerial application of **DISGRAN 750 WDG** may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS 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:

- <u>Volume</u>: A spray mixture volume of 30 to 35 litres 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 cm<sup>2</sup> must be recovered at the target area.
- <u>Droplet size</u>: A droplet spectrum with a VMD of 300 to 350 micron is recommended. Limit the production of fine droplets, less than 150 micron (high drift and evaporation potential), to a minimum.
- <u>Flying height</u>: 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.

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- Use suitable <u>atomising equipment</u> 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 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.
- Position all the atomisers within the inner 60 to 75 % of the wingspan to prevent droplets from entering the wingtip vortices.
- The difference in <u>temperature</u> 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 per hour.
- Stop spraying under <u>turbulent</u>, unstable and dry conditions during the heat of the day.
- Spraying under temperature <u>inversion conditions</u> (spraying in or above the inversion layer) and/or <u>high humidity conditions</u> (relative humidity 80 % and above) may lead to the following:
  - a) reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage),
  - b) 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.

#### **APPLICATION RATES**

**TABLE 1:** Pre-emergence application rate for **DISGRAN 750 WDG** in wheat.

Crop	Dosage rate / ha	Remarks
Wheat	37.5 g	Ground application.

**TABLE 2:** Post-emergence application rates of **DISGRAN 750 WDG** in wheat, oats and barley.

Crop	Dosage rate / ha	Remarks
Wheat, Oats & Barley	13 g	Ground application: Apply when wheat, oats or barley are in the 2- to 6-leaf stage.
	13 g to 15 g	Aerial application: Use 13 grams per hectare if Wild radish is not bigger than the 4-leaf stage.

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<u>TABLE 3:</u> Post-emergence application rates of **DISGRAN 750 WDG** used in tank mixture with other herbicides.

Crop	Dosage rate / ha	Remarks
Wheat, Oats & Barley	13 g  PLUS  0.6 to 0.75 ℓ / ha  Campatop 225 EC	Ground application: Use the 0.6 litre per hectare Campatop 225 EC rate in the Western and Eastern Cape, when Spiny emex is in the cotyledon to 3-leaf stage. Use the 0.75 litre per hectare Campatop 225 EC rate in the Western and Eastern Cape and Eastern Free State when Spiny emex is past the 3-leaf stage. Aerial application NOT recommended.
Wheat & Barley	13 g to 15 g  PLUS  7 g Metsulfuron-methyl 20 WG	Apply <b>DISGRAN 750 WDG</b> in a tank mixture with <b>Metsulfuron-methyl</b> for control of <i>Spiny emex</i> . Use the lower dosage rate for ground application and the higher for aerial application.

<u>TABLE 4:</u> Application of **DISGRAN 750 WDG** for control of broadleaf weeds in a resistant Rye grass control programme with **Trifluralin 480 EC** and **Wrestler 800 EC**.

Crop	Dosage rate / ha	Remarks
Wheat and Barley Pre-plant application:	1.5 ℓ Trifluralin 480 EC	
	PLUS	
	30 g <b>DISGRAN 750 WDG</b>	Apply pre-plant, pre-emergence.
	PLUS	
	2.0 ℓ <b>Wrestler 800 EC</b>	
Split pre- & post plant application:	1.5 \ell Trifluralin 480 EC pre-plant followed post plant* by  30 g DISGRAN 750 WDG  PLUS  2.0 \ell Wrestler 800 EC	Recommended under high rye grass infestation pressure and for improved control of weeds within the row.  Apply <b>Trifluralin 480 EC</b> pre-plant and follow-up within 3 days after planting with <b>Wrestler 800 EC</b> , pre-emergence of weeds. Add <b>DISGRAN 750 WDG</b> to the post-plant application for improved broadleaf weed control.
* - Post-plant application (within 2 to 3 days after planting), but still pre-emergence of weeds and crop.		

#### NOTE

Consult the labels of Campatop 225 EC, Metsulfuron-methyl, Wrestler 800 EC and Trifluralin 480
EC for USE RESTRICTIONS, WARNINGS (including RESISTANCE WARNINGS), PRECAUTIONS
and DIRECTIONS FOR USE.

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WEED SPECIES CONTROLLED OR SUPPRESSED BY PRE-EMERGENCE APPLICATION OF DISGRAN 750 WDG (EASTERN AND WESTERN CAPE):		
Weeds controlled:		
Pimpernel Anagallis arvensis		
Cape marigold	Arctotheca calendula	
Fumitory	Fumaria muralis	
Narrow-leaved ribworth	Plantago lanceolata	
Weeds controlled irregularly:		
Wild radish	Raphanus raphanistrum	
Weeds suppressed*:		
Spiny emex	Emex australis	
Italian ryegrass	Lolium multiflorum	
Sorrel	Oxalis spp.	

<sup>(\*</sup> Weed suppression is a visual reduction of the weed population and/or vigour, when compared with an untreated area).

#### Notes regarding pre-emergence weed control:

- Weeds not controlled successfully by means of pre-emergence application of DISGRAN 750 WDG (e.g. Wild radish) must be treated post-emergence with a herbicide from another chemical group (e.g. Bromoxynil or MCPA).
- Do not use any other sulphonyl-urea herbicide for follow-up herbicide applications.

WEED SPECIES CONTROLLED BY POST-EMERGENCE APPLICATION OF DISGRAN 750 WDG (EASTERN AND WESTERN CAPE):		
Weeds controlled:		
Cape wild mustard	Sisymbrium capense	
Wild radish	Raphanus raphanistrum	
Gunpowder weed	Silene gallica	
Nettle leafed goosefoot	Chenopodium murale	
Chickweed	Stellaria media	
Stinkweed	Pentzia spp.	
Weeds suppressed*:		
Yellow sorrel	Oxalis pes-caprae	
Vetch	Vicia spp.	
Corn spurry	Spergula arvensis	
Fumitory	Fumaria muralis	

<sup>(\*</sup> Weed suppression is a visual reduction of the weed population and/or vigour, when compared with an untreated area).

#### Notes on post-emergence weed control:

- A tank mixture of **DISGRAN 750 WDG** and **Campatop 225 EC** can be used if Spiny emex (*Emex australis*) and/or Cape marigold (*Arctotheca calendula*) is present in the Eastern and Western Cape, or Climbing knotweed (*Bilderdykia convolvulus*) in the eastern Free Sate.
- Emex australis can also be controlled with a tank mixture of **DISGRAN 750 WDG** and **Metsulfuron-methyl** in the Eastern and Western Cape.

The following products mentioned in this label may be replaced with equivalent products:

- CAMPATOP 225 EC (L 5320 / N-AR 1115 / W 1301421) = BROMOXYNIL 225 EC (L 4466 / W 130530),
- WRESTLER 800 EC (L 8758) = PROCARB 800 EC (L 8746) (Prosulfocarb) and
- TRIFLURALIN 480 EC (L 4555) = RIFLE 480 EC (L 8137).

CAMPATOP 225 EC, WRESTLER 800 WDG and RIFLE 480 EC are registered products of VILLA CROP PROTECTION (PTY) LTD.

TRIFLURALIN 480 EC, PROCARB 800 EC and BROMOXYNIL 225 EC are registered products of UNIVERSAL CROP PROTECTION (PTY) LTD.

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