



The miracles of science™



GRANSTAR® 75 DF

Reg. No. L3630 Act No. 36 of 1947

Reg. Nr. L3630 Wet Nr. 36 van 1947

A water dispersible granule post-emergence herbicide acting through the roots and foliage for the control of broadleaf weeds as listed on wheat and barley in the Winter Rainfall Region and winter planted wheat of the Summer Rainfall Region, as well as irrigated wheat.

'n Waterdispergeerbare korrel na-opkom onkruidodder wat deur beide wortels en blare opgeneem word, vir die beheer van breëblaar onkruid soos aangedui in koring en gars in die Winterreënvalstreek, en winter aangeplante koring in die Somerreënvalstreek, asook koring onder besproeiing.

FOR FULL PARTICULARS SEE ENCLOSED PAMPHLET

SIEN INGESLOTE PAMFLET VIR VOLLEDIGE BESONDERHEDE

ACTIVE INGREDIENT

Tribenuron methyl (sulfonyl urea) ...750 g/kg...

AKTIEWE BESTANDDEEL

Tribenuronmetiel (sulfonielureum)

Net Mass

150 g

Netto Massa

REGISTERED BY /
GEREGISTREER DEUR:
DUPONT DE NEMOURS INT S.A.
Co. Reg. No. 81/008502/10
P O BOX / POSBUS 3332
HALFWAY HOUSE 1685
Tel: (012) 683-5600

24 HOUR/UUR EMERGENCY
NUMBER/ NOODNOMMER:
083 123 3911

UN No. / VN Nr. 3077

BATCH NUMBER
DATE MANUFACTURED

LOTNOMMER
DATUM VERVAARDIG



(Green Colour band)

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A water dispersible granule post-emergence herbicide acting through the roots and foliage for the control of broadleaf weeds as listed on wheat and barley in the Winter Rainfall Region and winter planted wheat of the Summer Rainfall Region, as well as irrigated wheat.

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WARNINGS:

- The product may irritate eyes, nose, throat and skin.
- Keep out of reach of children and uninformed persons.
- Store in a cool, dry place.
- Store away from food and feeds.
- **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 adjacent areas. Should the recommended dosage rate be exceeded, damage to crops may occur.

Although this remedy has been extensively tested under a large variety of conditions the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal soil, climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the weed 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 which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS:

Do not smoke, drink or eat while using this product.

Avoid contamination of food, feed, drinking water and eating utensils.

For safety when mixing:

- Do not inhale dust.
- Wear eye protection (at least glasses).
- Wear rubber gloves.
- In the event of contact with eyes, wash with water immediately.
- In the event of contact with skin, wash with water immediately.
- In the event of contact with clothes, remove and wash.

For safety when spraying:

- Avoid contact with the spray as much as possible.
- Avoid spray drift onto susceptible crops, grazing, rivers, dams and areas not under treatment.

For safety after spraying:

- Wash yourself.
- Change and wash work clothes.
- Clean applicator thoroughly after use using the following method:

- i. Drain tank completely then flush tank, boom and hoses with clean water. Drain again.
- ii. Fill the tank with clean water and add household ammonia (contains 3 % active) at the rate of 1 ℓ for every 100 ℓ water. Circulate the ammonia solution through the tank, boom and hoses for at least 15 minutes. Drain completely.
- iii. To remove traces of ammonia, rinse the tank with clean water and flush through booms and hoses.
- iv. Repeat step (ii).
- v. Nozzles and filters must be removed and cleaned separately with ammonia solution at the same concentration as above.
- vi. Any contamination on the outside of the spraying equipment should be removed by washing with clean water.

Do not spray, drain or flush equipment on or near desirable trees or plants or where their roots may extend.

CONTAINER DISPOSAL:

- Containers and packages must be completely emptied before being destroyed.
- Never re-use for any purpose.

RESISTANCE STATEMENT:

When herbicides with the same mode of action are used in the same land for several consecutive years, it is possible that a selection of naturally occurring resistant weed species may take place. These will propagate and become dominant. A weed species is resistant to a herbicide if it survives a treatment correctly carried out at the recommended dose and application timing.

If a weed species is resistant to one sulfonylurea product, it can be expected that it will be resistant to all sulfonylurea herbicides.

Development of resistance can be avoided by alternating with product having a different mode of action but the same effect on the weed species or by using a tank mixture of the two products.

USE RESTRICTIONS:

1. **Follow up crops:**

1.1. **Dry land:**

GRANSTAR® only: Treated areas should not be planted with any crop other than small grain cereals (wheat, barley, oats) within 6 months of treatment. Wheat, barley and oats may be planted within 1 month after **GRANSTAR®** application.

1.2. **Irrigation :**

If the soil pH (water) is 7 or less, except in the case of cotton or cruciferous crops, follow-up crops may be planted within 4 months of applying **GRANSTAR®**. If the soil pH is higher than 7 and/or if cotton or cruciferous crops are to be follow crops then the withholding period is as mentioned above under 1.1.

2. **GRANSTAR®** has a short residual action on germinating weeds, influenced by factors such as pH, moisture in the soil, the species of weeds encountered, etc.

3. Variable control/re-growth of weeds may occur if one of the following conditions exist:

3.1. Light, acid, sandy soils that

- tends to leach
- tends to become waterlogged
- extended periods of wet and cold (as for example in the Bokkeveld)

3.2. Excessive rocky coverage of soil.

3.3. In the Winter Rainfall Region if application is made more than 3 weeks after weed emergence.

3.4. In the Winter Rainfall Region at a low crop plant population.

Under conditions of risk as described under 3.1. and 3.2. application of the herbicide must occur **not later than 2 weeks** after weed emergence in the winter rainfall region.

4. HOELON EC (Reg. No. L796 Act No. 36 of 1947) must not be applied within 10 days of **GRANSTAR**[®] application.
5. Under no circumstances should unused spray mixture be kept overnight.
6. Do not spray **GRANSTAR**[®] to cereals which are growing under stress conditions (stress conditions can result from water logging, drought, cold weather conditions, disease, insect damage and mineral element deficiencies).
7. **Under sown cereals:**
GRANSTAR[®] must not be applied to cereals under sown with pastures.
8. **Dilution water:**
Use only water of which the quality is suitable for overhead irrigation. Do not use water of which the conductive potential exceeds 1,0 mS/cm, or has a resistance lower than 300 ohm, or if the pH is less than 8.
9. Do not apply **GRANSTAR**[®] in combination with insecticides containing chlorpyrifos as severe stunting of the crop may result.

DIRECTIONS FOR USE:

USE ONLY AS DIRECTED

- Apply **GRANSTAR**[®] as a post-emergence spray to both crops and weeds.
- Prepare only sufficient spray for immediate use in the following manner:
- A dosage rate variation of as much as 7,5 % may occur if the measuring cup supplied is used to measure the required dosage rate. For total accuracy the dosage rate must be weighed out.

PRE-MIXING:

Mix the required amount of **GRANSTAR**[®] with a small amount of water to form a smooth cream without any remaining granules.

MIXING:

- Half fill the spray tank or pre-mix tank in case of aerial application with water.
- Add the required number of soluble bags to the spray tank / pre-mix tank.
- Top up the required volume while agitating continuously, then proceed as follows:
High volume: (e.g. ground sprayer)
Add the required amount of KYNOGRAL 90 (Reg. No. L2987 Act No. 36 of 1947), CITOWETT (Reg. No. L2968 Act No. 36 of 1947), BP AGRIPRON SUPER (Reg. No. L3022 Act No. 36 of 1947), or ARMOBLEN 650 (Reg. No. L4159 Act No. 36 of 1947) to the spray mixture and wait until thoroughly mixed before application.
Low volume: (e.g. aircraft)
Add the required amount of wetter to the spray mixture and allow to agitate for 2 minutes, so as to ensure thorough mixing before the mixture is pumped into the aircraft.
Note: Ensure that thorough agitation of the spray mixture is maintained at all times.

APPLICATION:

Ground Application:

Apply by means of a tractor mounted boom sprayer which is correctly calibrated to deliver at least 200 litres spray mixture per ha at a constant speed and pressure (100-200 kPa) to ensure an even delivery. Avoid overlapping of swaths and close the nozzles while starting slow movement, turning and stopping to prevent over-application.

Aerial Application:

Ensure a uniform and even distribution of spray material with a minimum loss during application. To achieve this, the following conditions must be met:

- A spray swath resulting in an even distribution is essential, as in the case of contact weed killers.
- Apply at least 30 l mixture per ha; preferably with "Whirl jet" nozzles.
- A minimum of 25-40 droplets per cm² must reach the target area.
- The spray cloud must have a VMD of 250-300 microns.
- Maintain an altitude of 3m above the target area at wind speeds of 0-8 km per hour and 2 m at wind speeds of 8-15 km per hour. Cease spraying when wind speeds exceed 15 km per hour. Avoid gusting wind conditions.
- Do not spray when the relative humidity (RH) drops below 45 %.
- Do not spray under excessively high temperatures.
- Accurate marking of spray swaths is essential.
- It is important to obtain assurance from the aerial spray contractor that the above specifications will be adhered to.

COMPATIBILITY:

The compatibility of **GRANSTAR® 75DF** with other products can be influenced by the formulation of the products concerned as well as the quality of the water used for dilution. Since the formulation of products can change without the knowledge of DuPont and the quality of dilution water can vary from farm to farm a physical compatibility test should always be carried out prior to application

CROP	APPLICATION RATE		REMARKS
Wheat (all areas) Barley (Western and Southern Cape only)	Ground Application: Use one water-soluble bag (15 g) GRANSTAR® per ha plus one of the following adjuvants All types of soil: See also use restrictions No's. 3.1 and 3.2		Apply as a post-emergence application before the crop canopy closes and thereby preventing the spray mixture from effectively covering the weeds. Most of the weeds should have germinated but the recommended time of application may not be exceeded. See also NOTES below.
	Adjuvant ARMOBLEN 650 or KYNOGRAL 90 or BP AGRIPRON SUPER or CITOWETT	Amount/100 l spray mixture 100 ml 10 ml 250 ml 10 ml	
Wheat (all areas) Barley (Western and Southern Cape only)	Aerial Application: Use one water soluble bag (15 g) GRANSTAR® per ha + 50 g GET-DOWN per 100 l spray mixture plus one of the following adjuvants		Apply as a post-emergence application before the crop canopy closes and thereby preventing the spray mixture from effectively covering the weeds. Most of the weeds should have germinated but the recommended time of application may not be exceeded. See also NOTES below
	Adjuvant ARMOBLEN 650 or KYNOGRAL 90 or BP AGRIPRON SUPER or CITOWETT	Amount/100 l spray mixture 100 ml 100 ml 1,5 l 0,5 l	

NOTES

- Established weeds not killed by cultivation or showing signs of re-growth will not be controlled.
- Do not apply when the crop shows any sign of stress such as drought.
- Although a temporarily yellowing of the leaves and/or a reduction in the straw length may occur after application, yield will not be adversely affected.

- The best results will be obtained when applied to young, actively growing weeds under moist conditions.
- Consult “MIXING INSTRUCTIONS” before mixing and application.

WEEDS CONTROLLED:
WESTERN AND SOUTHERN CAPE:

Table 1: Application Rate - 15 g GRANSTAR® per ha

BOTANICAL NAME	COMMON NAME	TIME OF APPLICATION
<i>Anagallis arvensis</i>	Pimpernel	Post-emergence but not later than 3 weeks after weed emergence
<i>Chenopodium album</i>	White goosefoot	
<i>Chenopodium murale</i>	Nettle-leaved goosefoot	Under conditions of risk as described under 3.1. and 3.2. do not apply later than 2 weeks after weed emergence.
<i>Fumaria muralis</i>	Fumitory	
<i>Lepidium africanum</i>	Pepper cress	
<i>Medicago polymorpha</i>	Burclover	
<i>Oxalis pes-caprae</i>	Yellow sorrel	
<i>Pentzia grandiflora</i>	Large stinkweed	
<i>Polygonum aviculare</i>	Prostrate knotweed	
<i>Raphanus raphanistrum</i>	Wild radish	
<i>Rapistrum rugosum</i>	Wild mustard	
<i>Sisymbrium thellungii</i>	Common mustard	
<i>Spergula arvensis</i>	Corn spurry	

SUMMER RAINFALL REGION:

The following weed species are normally controlled under irrigation in the Summer Rainfall Region, if sprayed from the seedling stage up to growth stage indicated.

BOTANICAL NAME	COMMON NAME	OPTIMUM WEED APPLICATION STAGE
<i>Amaranthus deflexus</i>	Perennial pigweed	3 - 4 leaves
<i>Chenopodium album</i> *	White goosefoot	5 cm tall
<i>Chenopodium carinatum</i> *	Green goosefoot	5 cm tall
<i>Chenopodium murale</i> *	Nettle-leaved goosefoot	5 cm tall
<i>Portulaca oleraceae</i>	Purslane	3 - 4 leaves
<i>Raphanus raphanistrum</i> *	Wild radish	3 - 4 leaves
<i>Rapistrum rugosum</i>	Wild mustard	3 - 4 leaves
<i>Sisymbrium thellungii</i> *	Common mustard	3 - 4 leaves

* Will be controlled in dryland winter planted wheat in the Summer Rainfall Region.

NOTE:

- Do not apply GRANSTAR® under dry growing conditions of the winter, apply once spring rains have occurred. If spring rains are late and weeds have developed too far - variable weed control may result from GRANSTAR® application under such conditions.

TRADE MARKS ACKNOWLEDGED

CITOWETT	BASF
HOELON	AgrEvo
BP AGRIPRON SUPER	BP (SA) (PTY) LTD.
ARMOBLEN 650	AKZO CHEMIE
KYNOGRAL	Kynoch Agrochemicals (Pty) Ltd