PRISM 20 WG

BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY
PRISM 20 WG
HERBICIDE
Reg. No. L8131, Act/Wet No. 36 of/van 1947
1: 13/09/2007
A water dispersible granule post-emergence herbicide for selective control of various broadleaf weeds as listed in wheat, barley and oats.
'n Waterdispergeerbare korrel na-opkoms onkruiddoder vir selektiewe beheer van breëblaaronkruide soos aangedui in koring, gars en hawer.
HRAC HERBICIDE GROUP CODE
B
HRAC ONKRUIDDODERGROEPKODE
ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL
Metsulfuron-methyl (sulfonylurea) 200 g/kg Metsulfuronmetiel (sulfonielureum)
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
250g
UN Number: 2588
Meridian agritech
DIRECTIONS FOR USE ENCLOSED
Batch Number
Date of manufacture
REFER TO DETAILS AS PRINTED ON CONTAINER / BAG
GEBRUIKSAANWYSINGS INGESLUIT
Lotnommer
Datum van vervaardiging
VERWYS NA BESONDERHEDE SOOS OP HOUER / SAK GEDRUK

WARNINGS

- Store in a cool, dry place out of direct sunlight.
- Store away from food, feed, fertilizer and other agricultural products.
- Keep out of reach of children, uninformed persons and animals.
- Should the recommended dosage be exceeded, crop damage may result with consequent yield reduction.
- Do not apply more than once per growing season.
- Under prolonged cool and wet conditions following application; leaf chlorosis (yellowing) and retarded crop development may occur. Yield should not be affected.
- **PRISM 20 WG** is safe to all important varieties of barley, oats (except cultivar Heros) and wheat. More susceptible cultivars may be released in future which need to be tested; for this apply **PRISM 20 WG** to a limited test area before commercial applications are made, or contact your distributor.
- In case of any uncertainty, contact your distributor.
- **Aerial application:** Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings.
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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

- Avoid skin and eye contact by wearing protective clothing when mixing the product.
- Wash with soap and water after use and accidental skin contact as well as contaminated clothing.
- In case of eye contact, immediately flush with water.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke while mixing or applying the product or before washing hands and face.
- Do not inhale spray mist and avoid contact with spray.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- **Clean applicator after use:** Special attention and care must be taken in cleaning all equipment used in the mixing and application of **PRISM 20 WG** to avoid possible damage to other crops.
  - i) Drain tank completely and flush tank, boom, hoses and nozzles with ample clean water.
  - ii) Drain tank again and fill with clean water.
  - iii) Add household ammonia at a rate of 1 litre for every 100 litres of water.
  - iv) Bleed the entire system once again to ensure that the ammonia solution has filled all hoses, boom and nozzles.
  - v) Leave the ammonia solution in the system for approximately 1 hour before draining the tank and pipe system.
  - vi) Repeat steps iii) to v).
  - vii) Nozzles and filters should be removed and placed in an ammonia solution of the above concentration above for at least 1 hour.
  - viii) Contamination on mixing equipment should be washed with ammonia solution and any contamination on the outside of spraying equipment can be removed with clean water.
- Dispose of rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Prevent contamination of food, feeds, drinking water and eating utensils. Destroy the empty container and do not use for any other purpose.

USE RESTRICTIONS

- **Follow-up crops after application of PRISM 20 WG to cereal crops:**

i) Treated areas may be planted to wheat within 1 month after **PRISM 20 WG** application. ii) Treated areas may not be planted to barley or oats within 6 months of **PRISM 20 WG** application. iii) Treated areas may not be planted to maize or sunflowers within 10 months of **PRISM 20 WG** application.

iv) All other crops may not be planted within 12 months of **PRISM 20 WG** application.

v) In the case of application of a tank mixture of **PRISM 20 WG** with 10 g/ha of chlorsulfuron 750 formulation, the withholding periods for maize, sunflowers must be extended to 12 months and for all other crops must be extended to 15 months.

Under these circumstances, consult your technical representative for specific recommendations.

- The residual action of **PRISM 20 WG** in the soil is influenced by soil moisture and therefore amount of rainfall and distribution thereof is important. For this reason, the withholding periods above are only valid if normal rainfall amount and distribution is experience within the season of **PRISM 20 WG** application, between application and harvest. Withholding periods should be extended where insufficient rainfall or abnormal distribution thereof is experienced. A test planting is recommended in all cases.
- Soil moisture is essential for root uptake and residual effect on broadleaf weeds. Application of **PRISM 20 WG** to dry upper soil surface or waterlogged soil conditions will have little or no residual effect. Under these conditions, certain weed species can regrow. Soils with a low pH value will cause **PRISM 20 WG** to break down more quickly, whereas soils with pH values above 6,5 or containing free lime will prevent the breakdown of **PRISM 20 WG** which can lead to a longer residual effect with possible consequences for follow-up crops.
- To avoid potential damage to follow-up crops, the waiting periods indicated above must be adhered to following application of **PRISM 20 WG**. A test planting is recommended in all cases.
- Prepare only sufficient spray mixture for immediate use. The mixture is usually stable for up to 6 hours. Unused spray mixture may not be kept overnight.
- Rain within 1 hour (or before the spray deposit has dried) of **PRISM 20 WG** application may result in reduced efficacy on emerged weeds.
- Apply only to weeds in the growth stage/s indicated below.
- Do not use **PRISM 20 WG** on crops which already show symptoms of soil borne diseases as the combination of disease and **PRISM 20 WG** application may result in stand loss.
- Do not apply **PRISM 20 WG** unless the night time is above 5 °C for at least 5 consecutive nights.
- Temporary leaf yellowing and/or reduction in straw length may occur following **PRISM 20 WG** application. Under favourable growing conditions, the crop will recover quickly and yield should not be affected.
- Do not use in combination with formulations containing chlorpyrifos.
- Do not apply **PRISM 20 WG** to any crop or situation not mentioned in this instruction leaflet.
- Only apply **PRISM 20 WG** using an accurate and safe application technique.
- If **PRISM 20 WG** is used in a tank mix with other recommended remedies, consideration should be given to the restrictions of those respective products.
- Do not spray near fruit trees or any other desirable crop/plant within 50 m in any wind direction.

Timing of application:

- **PRISM 20 WG** should not be applied to wheat within 14 days after use of diclofop-methyl or fenoxaprop-P-ethyl.
- Do not apply diclofop-methyl or fenoxaprop-P-ethyl after a **PRISM 20 WG** application.
- **PRISM 20 WG** should not be applied within 10 days of a tralkoxydim application. ￼ Observe growth stage restrictions when using MCPA SL and 2,4-D based products.

Factors affecting weed control:

Variable weed control or regrowth may occur should one or more of the following condition occur:

- Do not apply to crops and weeds stressed by abnormal weather or growing conditions, drought, waterlogged soil, hail or wind damage, cold conditions, insect damage, nematode infections, diseases, nutritional deficiencies or crops under stress through prior use of other agrochemicals or for a period of 4 weeks thereafter.
- Where the crop density (stand) is low.
- Should application of **PRISM 20 WG** take place later than the recommended stage of weed development.
- Application to sandy soils with a low water pH and/or waterlogged or highly leachable soils.
- Do not apply **PRISM 20 WG** within 24 hours of a predicted cold front or if a cold front is present.

Continue application only after normal day/night temperatures have set in.

- Inadequate spray coverage/penetration due to large soil clods and/or stone-covered soil.
- Under higher risk conditions as described above, **PRISM 20 WG** should not be applied in the summer rainfall region later than 2 weeks after germination of the weeds.
- In situations of high weed density, ensure adequate coverage of all weeds with the spray mixture. High volume, ground application is preferable in such circumstances. Only weeds within the specified growth stage will be controlled.
- Weeds not controlled by minimum or mechanical tillage programmes will not be controlled.

Undersown cereals:

- Do not use **PRISM 20 WG** in cases of undersown legumes, clover or pastures.
- Do not use in combinations with any products containing heavy metals such as Calcium, Zinc, Manganese or Copper.

RESISTANCE WARNING

For resistance management, **PRISM 20 WG** is a group code B herbicide. Any weed population may contain individuals naturally resistant to **PRISM 20 WG** and other group code B herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **PRISM 20 WG** or any other group code B herbicide.

To delay herbicide resistance:

- Avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or tank mix with registered products from different herbicide group codes.
- Integrate other control methods (chemical, cultural, biological) into weed control programmes.

For specific information on resistance management contact the registration holder of this product.

The presence of resistant weeds is difficult to detect prior to use and therefore neither the Registration Holder nor the Distributor can accept responsibility for any losses as a result of **PRISM 20 WG** not controlling resistant weeds. Do not apply **PRISM 20 WG** alone in situations where weed resistance has been confirmed. Sub-standard application of **PRISM 20 WG** or other ALS inhibitor herbicides will lead to inferior weed control and may assist in development of herbicide resistance.

DIRECTIONS FOR USE

Use only as directed

MIXING INSTRUCTIONS

Pre-mix the **PRISM 20 WG** as follows:

- Count the number of sachets required according to the number of hectares to be treated and the spray tank capacity.
- Add the contents of the counted sachets into a bucket with water and mix, ensuring complete disintegration of the bags and complete dispersion of the contents.

Half-fill the spray tank with suitable water. Only use water suitable for irrigation and avoid using water with high levels of chlorine. Adjust the water's pH to between 6,7 and 7,5 if necessary. Avoid using spray water with resistance lower than 300 ohms and electrical conductivity higher than 1,0 mS/cm. Pre-mix the required quantity of **PRISM 20 WG** in at least 10 litres of spray water as indicated above. Then add the pre-mixture to the water through a sieve while agitating. Rinse the pre-mixing bucket with water into the spray tank followed by the addition of the recommended quantity of surfactant. Finally, add the partner remedy as appropriate. Fill the spray tank to the desired volume. Should tank mixtures with other agrochemicals be made, follow the respective manufacturers' label recommendations. **Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight**. Spraying equipment must be thoroughly flushed out at the end of the spraying operation as described above.

COMPATIBILITY

The compatibility of **PRISM 20 WG** 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 use **PRISM 20 WG** in combination with products containing chlorpyrifos, tralkoxydim, fenoxaprop-pethyl or diclofop-methyl. **PRISM 20 WG** is compatible with chlorsulfuron 750 formulations, 2,4-D ester, 2,4-D amine, **DIVERT 75 WG**, MCPA SL and bromoxynil 225 EC. **PRISM 20 WG** must always be used in conjunction with a recommended adjuvant such as Agral 90. Do not use a mineral oil based surfactant.

APPLICATION METHODS

Ensure that the equipment is correctly calibrated and is checked regularly during application to ensure even and accurate application.

GROUND APPLICATION

Tractor mounted boom sprayers may be used. A spray volume of approximately 200 ℓ/ha should be used for ground application and can be applied via solid- or hollow cone nozzles. **Constant agitation throughout the spray operation is essential**. Only clean water should be used. Prevent overdosing by avoiding overlapping of swaths and closing the nozzles while starting, slow movement, turning and stopping.

AERIAL APPLICATION

Aerial application of **PRISM 20 WG** may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 0118 (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:

- Volume: A spray mixture volume of 30 litre per hectare is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
- Droplet coverage: 30 to 40 droplets per cm² must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 250 to 280 microns is recommended. Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
- Flying height: Maintain the height of the spray boom at 3 to 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking
- Use suitable atomising equipment that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomisers within the inner 60 to 75 % of the wingspan to prevent droplets from entering the wingtip vortices.
- The difference in temperature between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C.
- Stop spraying if the wind speed exceeds 15 km/h.
- Stop spraying under turbulent, unstable and dry conditions during the heat of the day.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following:
  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.

RECOMMENDATIONS

CROP	PRISM 20 WG (g/ha)	TIMING OF APPLICATION
WINTER RAINFALL REGIONS **Wheat, barley and oats**	**Ground application:** 10 – 12,5 g/ha PLUS 50 mℓ AGRAL 90 /100 ℓ spray mixture **OR** 10 g/ha + 8 g/ha **CENTRIC 75 WG** PLUS 50 mℓ AGRAL 90 /100 ℓ spray mixture **OR** 10 g/ha + 8 g/ha **CENTRIC 75 WG** + 500 mℓ/ha MCPA 400 SL **Aerial application:** 10 – 12,5 g/ha PLUS 100 mℓ AGRAL 90 /100 ℓ spray mixture **OR** 10 g/ha + 8 g/ha **CENTRIC 75 WG** + 100 mℓ AGRAL 90 / 100 ℓ spray mixture **OR** 10 g/ha + 8 g/ha chlorsulfuron + 500 mℓ/ha MCPA 400 SL	Best weed control will be obtained when application is made to weeds growing actively under stress-free environmental conditions. Post-emergence spray when the crop is in the 3 – 5-leaf stage but not later than 4 weeks after weed emergence. When MCPA is added, apply between growth stages 7 (centre double ridges enlarged) and 13 (awn of the top spikelets elongated) of wheat according to the list of growth stages published by the ARC-Small Grain Institute, Bethlehem. Use the higher rate of AGRAL 90 or the mixture with MCPA for dense weed stand and for control of fumitory, spiny emex and wild radish in the 5 – 6-leaf stage or where soil moisture conditions are deteriorating. Always add a drift redardant to the spray mixture for aerial application.
Wheat (planted with a planter)	**Ground and aerial application:** 4,0 g/ha PLUS 8,0 g/ha **CENTRIC 75 WG** PLUS 100 mℓ AGRAL 90 / 100 ℓ spray mixture	Best weed control will be obtained when application is made to weeds growing actively under stress-free environmental conditions. Weeds must not exceed the 4-leaf stage. Crop should be in the 3 – 5 leaf stage at application.

<u>WEEDS CONTROLLED BY Prism IN THE WINTER RIANFALL REGION:</u>

Amsickia menziesii	Fiddle neck
Anagallis arvensis	Pimpernel
Cenia turbinate	Goose daisy
Chenopodium album	White goosefoot
Emex australis	Spiny Emex
Erodium moschatum	Musk Heron's bill
Fumaria muralis	Fumitory
Oxalis latifolia	Red garden sorrel
Oxalis pes-caprae	Yellow sorrel
Pentzia suffruticosa	Small stinkweed
Raphanus raphanistrum	Wild radish
Sisymbrium thellungii	Common wild mustard
Stellaria media	Chick weed
Vicia hirsute	Tiny purple vetch
Vicia sativa	Broad-leaved purple vetch

CROP	PRISM 20 WG (g/ha)	TIMING OF APPLICATION
SUMMER RAINFALL REGIONS **Wheat** (dryland) **Ground and aerial application**	25 – 30 g/ha PLUS 10,0 g/ha **CENTRIC 75 WG** 750 PLUS 100 mℓ AGRAL 90 / 100 ℓ spray mixture	Apply between 2-leaf stage and flowering of crop. Weeds which were not controlled by cultivation or those which show signs of regrowth will not be controlled.
	25 – 30 g/ha PLUS 10 g/ha **CENTRIC 75 WG** PLUS 320 mℓ/ha 2,4-D amine PLUS 100 mℓ AGRAL 90 / 100 ℓ spray mixture	Apply between 2-leaf stage and flowering of crop. Weeds which were not controlled by cultivation or those which show signs of regrowth will not be controlled. When MCPA or 2,4-D are added, apply between growth stages 7 (centre double ridges enlarged) and 13 (awn of the top spikelets elongated) of wheat according to the list of growth stages published by the ARC-Small Grain Institute, Bethlehem.
	25 – 30 g/ha PLUS 10 g/ha **CENTRIC 75 WG** PLUS 210 mℓ/ha 2,4-D ester PLUS 100 mℓ AGRAL 90 / 100 ℓ spray mixture	Apply between 2-leaf stage and flowering of crop. Weeds which were not controlled by cultivation or those which show signs of regrowth will not be controlled. When MCPA or 2,4-D are added, apply between growth stages 7 (centre double ridges enlarged) and 13 (awn of the top spikelets elongated) of wheat according to the list of growth stages published by the ARC-Small Grain Institute, Bethlehem.
	25 – 30 g/ha PLUS 10 g/ha **CENTRIC 75 WG** PLUS 750 mℓ/ha bromoxynil 225 PLUS 100 mℓ AGRAL 90 / 100 ℓ spray mixture	Apply between 2-leaf stage and flowering of crop. Weeds which were not controlled by cultivation or those which show signs of regrowth will not be controlled.
	25 – 30 g/ha PLUS 10 g/ha **CENTRIC 75 WG** PLUS 250 mℓ - 1,0 ℓ/ha MCPA SL PLUS 100 mℓ AGRAL 90 / 100 ℓ spray mixture	Apply between 2-leaf stage and flowering of crop. Weeds which were not controlled by cultivation or those which show signs of regrowth will not be controlled. When MCPA or 2,4-D are added, apply between growth stages 7 (centre double ridges enlarged) and 13 (awn of the top spikelets elongated) of wheat according to the list of growth stages published by the ARC-Small Grain Institute, Bethlehem.

Remarks

- Apply after the first spring rains have rains have fallen.
- Both the crop and weeds must be actively growing which would usually follow 10 – 15 mm of rain.

WEEDS CONTROLLED BY PRISM 20 WG IN THE SUMMER RAINFALL REGION AND MAXIMUM WEED STAGE:

Amaranthus spp.	Pigweed	(4 – 8-leaf stage)
Chenopodium album	White goosefoot	(4 – 8-leaf stage)
Fallopia convolvulus	Climbing knotweed	(6-leaf stage)
Helianthus annus	Volunteer sunflower	(6-leaf stage)
Polygonum aviculare	Prostrate knotweed	(4 – 8-leaf stage)
Raphanus raphanistrum	Wild radish	(6 – 8-leaf stage)
Rumex angiocarpus	Sheep sorrel	(6 – 8-leaf stage)
Senecio consanguineus	Ragwort	(6 – 8-leaf stage)
Sisymbrium thullengii	Common wild mustard	(4-leaf stage)
Tribulus terrestrus	Dubbeltjie	(10 cm diameter)

GENERAL REMARKS

- **PRISM 20 WG** should be applied post-emergence of actively growing crop and weeds (within the specified growth stage).
- Although weeds sprayed with **PRISM 20 WG** will stop growing soon after application, thereby eliminating competition, the maximum visual effect may only be observed up to 28 days following application.
- Addition of a buffer and wetter to the spray mixture is essential.
- Ensure adequate soil moisture is available in the root zone.
- Broadleaf weeds which germinate after application of **PRISM 20 WG** or mixture thereof, will not be adequately controlled.

WAARSKUWINGS

- Oormatige blootstelling aan die produk mag irritasie van oë en vel verroorsaak.
- Berg in ‘n koel plek, weg van direkte sonlig.
- Berg weg van voedsel, voer, kunsmis en ander landbou produkte.
- Hou buite bereik van kinders, oningeligte persone en diere.
- Indien die aanbevole dosis oorskry word, mag gewasskade veroorsaak met gevolglike laer oeste.
- Moet nie meer as een keer in dieselde seisoen toedien nie
- Langdurige koud en nat toestande na toediening kan lei tot chlorose (vergeling) en vertraagte groei van die gewas. Opbrengs sal egter nie geaffekteer word nie.
- **PRISM 20 WG** is veilig op al die belangrike gars, hawer (behalwe kultivar Heros) en koring kultivars. Meer gevoeligge kultivars mag in die toekoms geplant word wat getoets moet word; in dié geval, dien **PRISM 20 WG** toe op ‘n beperkte area voordat kommersiele toedienings plaas vind of raadpleeg u naaste verspreider.
- In geval van enige onsekerheid, raadpleeg u naaste verspreider.
- **Lugtoediening:** Stel al die inwoners in die onmiddelike omgewing van die gebied wat gespuit gaan word en ruik nodige waarskuwings uit.

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 doeltreffenheid daarvan kan beinvloed word deur faktore soos abnormale klimaats- en bergingstoestande, kwaliteit van die verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui word nieen die voorkoms van weerstand van die onkruid teen die betrokke middel sowel as die tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordlikheid vir skade aan gewasse, plantegroei en die omgewing of nadelige invloed op mens of dier of vir ‘n gebrek aan prestasie van die betrokke middel as gevolg van versuim van die gebruiker om etiketaanwysings na te kom, of as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kon word nie. Raadpleeg die verskaffer in die geval van enige onsekerheid.

VOORSORGMAATREËLS

- Hou oplosbare sakkies ten alle tye droog – totdat vermenging plaasvind.
- Vermy kontak met die vel en oë deur beskermende klere te dra wanneer die produk gemeng word.
- Was met seep en water na gebruik en toevallige vel kontak.
- In geval van kontak met oë, spoel onmiddelik met water.
- Was besoedelde klere na gebruik.
- Moet nie eet, drink of rook tydens vermenging of toediening van die produk of voordat die hande en gesig gewas is nie.
- Moet nie die spuitnewel inasem nie en vermy kontak met spuitnewel.
- Vermy spuitnewel op ander gewasse, weiveld, riviere, damme en plekke wat nie behandel moet word nie.
- **Maak toedieningsapparaat skoon na gebruik:** Spesiale aandag moet gegee word aan die skoonmaak van alle spuittoerusting sowel as vermengingsapparaat, na toediening van **PRISM** om moontlike skade aan ander gewasse te voorkom.

i) Dreineer spuittenk en spoel spuittenk, spuitbalk, pype en spuitpunte deeglik uit met genoeg skoonwater.
ii) Dreineer die spuittenk weer en hervul met skoon water.
iii) Voeg huishoudelike Ammoniak by teen ‘n konsentrasie van 1 liter per 100 liter water.
iv) Bloei die hele sisteem deur, om seker te maak dat alle pype, spuitbalk and spuitpunte met die Ammoniakoplossing gevul is.
v) Laat die Ammoniakoplossing in die spuittenk vir ten minste 1 huur, voor die sisteem gedreineer is.
vi) Herhaal stappe iii) tot v).
vii) Spuitpunte en filtreerders moet verwyder word en in ‘n Ammoniakoplossing soos bo genoem gelos word vir ten minste ‘n huur.
viii) Kontaminasie op die mengapparaat moet ook gewas word met ‘n Ammoniak oplossing, terwyl residue op die buitekant van spuittoerusting met water afgewas kan word.
ix) Verwyder die Ammoniakresidue deur die spuitsisteem goed te spoel met skoon water.

- Uitspoelwater moet nie gewasse, weiveld, riviere, damme en boorgate besoedel nie.
- Voorkom die besoedeling van voedsel, voer, drinkwater en eetgerei. Vernietig die leë houer, moet vir geen ander doel gebruik nie.

GEBRUIKSBEPERKINGS

- **Opvolg gewasse na toediening van PRISM 20 WG op kleingraangewasse:**

i) Die behandelde area mag 1 maand na toediening met koring geplant.

ii) Gars en hawer mag eers na 6 maande geplant word, na toediening van **PRISM 20 WG**.

iii) Mielies en sonneblomme mag eers na 10 maande geplant word, na toediening van **PRISM 20 WG**.

iv) iv) Alle ander gewasse mag eers vanaf 12 maande na **PRISM 20 WG** toediening geplant word.

v) In geval van 'n toediening van 'n tenkmengsel van **PRISM 20 WG** plus 10 g/ha **CENTRIC**, moet die onthoudingsperiode van mielies en sonneblomme verleng word tot 12 maande en alle ander gewasse tot 15 maande.

Onder sulke toestande, raadpleeg u naaste tegniese adviseur vir spesifieke aanwysings.

- Die residuele aksie van **PRISM 20 WG** in die grond word beinvloed deur grondvog en daarvoor is die hoeveelheid en die verspreiding van reën van uiterste belang. Vir dié rede is die bogenoemde wagperiodes net geldig indien hoeveelhede en verspreiding van reën normaal is binne die seisoen van toediening, voor oes. Wagperiodes moet verleng word in instansies van onvoldoende reën of abnormale verspreiding daarvan. 'n Toetsplanting is aanbeveel in alle instansies.
- Grondvog is noodsaaklik vir wortelopname en grondnawerking op breëblaaronkruide. Toediening van **PRISM 20 WG** op 'n droë grondoppervlak of versuipte grondtoestande sal ly tot min of geen grond nawerking. Sulke toestande kan ly tot die hergroei van sekere onkruide. Gronde met 'n lae pH waarde bevorder die afbraak van **PRISM 20 WG** in die grond, wat tot 'n korter periode van nawerking kan lei. **PRISM 20 WG** is meer stabiel in gronde met 'n hoë water pH (bo 6,5) of in grond wat vry kalk bevat. Dit kan lei tot 'n langer nawerking in die grond wat opvolggewasse kan beskadig
- Om moontlike skade aan opvolggewasse te vermy, moet die bostaande wagperiodes gevolg word na toediening van **PRISM 20 WG**. 'n Toetsplanting is aanbeveel in alle instansies.
- Maak slegs genoeg spuitmengsel vir onmiddelike gebruik aan. Die mengsel is stabiel vir omtrend 6 ure. Ongebruikte spuitmengsel mag nie oornag gehou word nie.
- Reën of besproeing binne 1 huur (of voor die spuitneerslag afgedroog het) van **PRISM 20 WG** toediening, mag resultate negatief beinvloed.
- Dien net op onkruide in die aanbevole groeistadium toe.
- Moet nie **PRISM 20 WG** toedien op gewasse wat reeds simptome van grondgedraagte siektes wys, want die kombinasie van die siekte en die **PRISM 20 WG** toediening kan 'n oesverlies oordring.
- Moet nie **PRISM 20 WG** toedien indien die minimum nagtemperatuur bokant 5°C bly vir ten minste 5 agtereenvolgende nagte nie.
- Moet nie **PRISM 20 WG** met chlorpyrifos bevattende insekdoders gebruik nie.
- Tydelike blaarvergeling en/of verkorting van blaarlengte mag na **PRISM 20 WG** toediening voorkom. Onder gunstige groeitoestande herstel die gewas vinnig en opbrengs sal nie beinvloed word nie.
- Moet nie **PRISM 20 WG** toedien op enige gewas of situasie wat nie op hierdie etiket verskyn nie.
- Dien toe slegs met 'n veilig en akuraat toedieningsmetode.
- As **PRISM 20 WG** met ander middels in tenkmengsels gebruik word, moet die gebruiksaanwysings van die betrokke produk gevolg word word.
- As **PRISM 20 WG** met ander middels in tenkmengsels gebruik word, moet die gebruiksaanwysings van die betrokke produk gevolg word word.
- Moet nie naby vrugte bome of enige sierplante spuit nie. Laat 'n afstand van ten minste 50 m toe tydens bespuiting afgesien windrigting.

Tyt vanToediening:

- **PRISM 20 WG** moet nie op koring toegedien word binne 14 dae na toediening van diclofop-methyl of fenoxaprop-P-ethyl.
- Moet nie diclofop-methyl of fenoxaprop-P-ethyl toedien nadat daar met **PRISM 20 WG** gespuit is nie.
- **PRISM 20 WG** moet nie binne 10 dae van 'n tralkoxydim toediening bespuit word nie.

Faktore wat onkruidbeheer beïnvloed:

Wisselvalige onkruidbeheer of hergroei van onkruide mag voorkom as een of meer van die volgende toestande voorkom:

- **PRISM 20 WG** moet nie op gewasse en onkruide toegedien word wat onderhewig is aan stremming as gevolg van abnormale weers- of groeitoestande, droogte, versuiptoestande, insekskade, aalwurminfeksies, siektes, voedingstekorte of gewasse onder stremming as gevolg van die vroeëre gebruik van ander landbouchemikalië of vir ‘n periode van 4 weke daarna nie.
- Waar die gewasdigtheid (plantestand) laag is.
- Indien toediening van **PRISM 20 WG** na die optimale groeistadium van die onkruide plaasvind.
- Toediening op sanderige gronde met ‘n lae water pH en/of versuip- of hoë logingstoestande.
- Moet nie **PRISM 20 WG** gedurende ‘n kouefront toedien of indien ‘n aankomende kouefront binne 24 uur voorspel word nie. Bespuitings moet eers weer begin sodra die nag/dag temperature weer herstel het na normaal vir die tyd van die jaar.
- Maak seker dat voldoende spuitmengselbedekking oor die onkruide plaasvind, waar die grond met groot kluite of klippe bedek word.
- Onder hoë risiko toestande soos hierbo genoem, moet **PRISM 20 WG** toediening in die somerreënvalstreek nie later as 2 weke na ontkieming van onkruide plaasvind nie.
- In situasies van hoë onkruiddigtheid verseker dat alle onkruide goed met die spuitmengsel bedek word. In sulke gevalle word hoër volumes met grondtoediening aanbeveel. Net onkruide wat binne die groeistadium val, sal beheer word.
- Onkruide wat nie deur minimumbewerkings- of skoffelbewerkingsprogramme beheer word nie, sal nie beheer word nie.

Ondergesaaide weidings:
- Moet nie **PRISM 20 WG** op graan met ondergesaaide peulgewasse, klawers of weidings toedien nie.
- Moet nie in kombinasie met produkte wat swaarmetale bevat soos bv. Kalsium, Sink, Mangaan of Koper gebruik nie.

WEERSTANDSWAARSKUWING

Vir weerstandsbestuur is **PRISM 20 WG** ‘n groepkode B onkruiddoder. Enige populasie van ‘n spesifieke onkruid mag individue insluit wat ‘n natuurlike weerstand teen **PRISM 20 WG**, of enige ander groepkode B onkruiddoder het. Indien hierdie onkruiddoders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die onkruidpopulasie oorheers. Hierdie weerstandbiedende onkruide sal waarskynlik nie deur **PRISM 20 WG** of enige ander groepkode B onkruiddoder beheer word nie.

Om weerstand teen onkruiddoders te vertraag:

- Vermy die eksklusiewe herhaaldelike gebruik van onkruiddoders met dieselfde groepkode.
- Wissel af met, of gebruik tenkmengsels van, produkte in verskillende onkruiddodergroepkodes.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in onkruidbeheerprogramme.

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

Die teenwoordigheid van sulke weerstandbiedende onkruide is moeilik om te bepaal voordat die onkruiddoder toegedien is. Die registrasiehouer en verspreider kan dus nie verantwoordelikheid aanvaar vir enige verliese wat mag voortspruit uit swak onkruidbeheer van weerstandbiedende onkruidtipes nie. Waar weerstand bekend is, moet **PRISM 20 WG** nie alleen toegedien word nie.
Té lae dosisse **PRISM 20 WG** of ander groepkode B onkruiddoders sal lei tot onbevredigende onkruidbeheer wat kan bydra tot die ontwikkeling van onkruiddoderweerstand.

GEBRUIKSAANWYSINGS
Gebruik slegs soos aangedui.

MENGINSTRUKSIES

Meng die **PRISM 20 WG** vooraf soos volg:
- Moet nie die oplosbare sakkies met nat handskoene hanteer nie.
- Tel die getal sakkies af wat volgens die aantal hektare behandel gaan word en die kapasiteit van die spuittenk.
- Gooi die getelde sakkies in ‘n emmer met water en meng om te verseker dat volle disintegrasie van die sakkies en volle verspreiding van die inhoud in die water plaasgevind het.

Maak die spuittenk halfvol met geskikte water. Gebruik slegs water wat geskik is vir besproeiing en vermy water met ‘n hoë chloorinhoud. Indien nodig, stel die water se pH reg tot tussen 6.7 en 7.5.

Vermy water met ‘n weerstand laer as 300 ohms of ‘n geleidingsvermoë bo 1.0 mS/cm. Meng die benodigde hoeveelheid **PRISM 20 WG** met ten minste 10 liter spuitwater soos hierbo aangedui. Voeg die voormengsel by die spuittenk en verseker voltydse roering. Spoel die mengemmer uit met water in die spuittenk. Voeg die benodigde hoeveelheid benatter in die tenk. Laastens word die ander middels soos benodig bygevoeg. Maak die spuittenk tot by die finale volume vol. Roer goed om vermenging te verseker voordat die mengsel toegedien word. As tenkmengsels met ander middels gemaak word, moet die betrokke vervaardiger se etiket gevolg word. **Die tenkmengsel moet onmiddellik uitgespuit word en nie toegelaat word om oornag in die spuittenk te staan nie.** Die spuittoerusting moet aan die einde van toediening deeglik uitgewas word soos hierbo aangedui.

VERENIGBAARHEID

Die verenigbaarheid van **PRISM 20 WG** met ander produkte hang van die formulering van die betrokke produkte af, asook van die kwaliteit van die spuitwater. Deurdat formulerings van tyd tot verander word dit aanbeveel om ‘n fisiese verenigbaarheidstoets uit te voer voordat die tenkmengsel gemaak word. Moet nie **PRISM 20 WG** saam met chlorpirifos bevattende insekdoders tralkoksidim, fenoksaprop-p-etiel of diklofopmetiel gebruik nie.

PRISM 20 WG is verenigbaar met chloorsulfuron 750 formulerings, 2,4-D ester, 2,4-D amien, MCPA SL en bromoksinil 225 EC. **PRISM 20 WG** moet altyd saam met ‘n aanbevole benatter soos Agral 90 toegedien word. Moet nie ‘n minerale olie benatter gebruik nie.

TOEDIENINGSMETODES

Maak seker dat die spuittoerusting korrek gekalibreer is en gereeld gedurende die toediening nagegaan word om seker te maak dat die toediening egalig en akkuraat is.

GRONDTOEDIENING

Rugsakspuite of ‘n konvensionele spuitbalk kan gebruik word. ‘n Totale spuitvolume van 200 – 400 ℓ/ha moet gebruik word en dit kan toegedien word met soliede- of holkeëlspuitpunte. **Die mengsel moet aanhoudend en deeglik geroer word tydens toediening**. Gebruik net skoon water vir toediening. Om oordosering te verhoed moet die oorvleueling van spuitbane vermy word en moet die spuitpunte afgesluit word wanneer die stelsel aangeskakel word, stadig beweeg, draai en tot stilstand kom.

LUGTOEDIENING

Lugtoediening mag slegs deur ‘n geregistreerde lugbespuitingsoperateur met ‘n geregistreerde en korrek gekalibreerde vleigtuig volgens die instruksies van SANS Kode 10118 (Aerial Application of Agricultural Pesticides) gedoen word. Dit is belangrik om te verseker dat die spuitmengsel eweredig oor die teikenarea versprei word en dat die verlies aan spuitmengsel tydens toediening tot ‘n minimum beperk word. Die volgende kriteria moet nagekom word;

Toerusting

- Gebruik geskikte atomiseringsapparaat (hidroliese of roterende spuitkoppe) wat die vereiste druppelgrootte en bedekking van die teiken sal produseer, maar wat die minste verlies van produk deur wegdrywing sal verseker.
- Die operateur moet ‘n spuitstelsel gebruik wat ‘n druppelspektrum met die kleinste moontlike relatiewe span sal produseer.
- Al die spuitkoppe en atomiseerders moet in die binneste 75% van die vlerkspan geplaas word om die beweging van druppels binne-in die vlerkpuntvorteks te beperk.

Toedieningsvereistes

- ‘n Minimum volume van 30 ℓ spuitmengsel per ha word aanbeveel. Aangesien hierdie produk nie teen ‘n verlaagde spuitvolume getoets is nie, kan die registrasiehouer nie effektiwiteit waarborg of verantwoordelik gehou word vir enige nadelige effek indien hierdie produk teen ‘n laer volume as hierbo aanbeveel, uit die lug toegedien word nie.
- ‘n Druppelbedekking van 30 - 40 druppels per vk cm moet op die teikenarea herwin word.
- ‘n Druppelspektrum met ‘n VMD van 250 - 280 mikron word aanbeveel. Verseker dat die produksie van fyn druppels, die wat kleiner as 150 mikron is, tot ‘n minimum beperk word.
- Die hoogte van die spuitbalk moet tussen 3 en 4m bokant die teiken gehandhaaf word.

- Moet nie spuit wanneer die vliegtuig aan die bopunt van ‘n draai is of tydens ‘n duik of terwyl dit uitklim of draai nie.
- Dien toe voordat die gewas te ruig word aangesien die druppelbedekking op die plante verminder sal word.

Meteorologiese toestande

- Die verskil tussen die nat-en droëbollesings, soos met behulp van 'n swaai-higrometer bepaal, moet nie 8 °C oorskry nie.
- Moet nie tydens turbulente en onstabiele weerstoestande of gedurende die hitte van die dag toedien, wanneer stygende en dalende konveksie windbeweging plaasvind nie.
- Moenie onder temperatuurinversie-toestande (deur bokant of binne-in die inversielaag te spuit) en/of hoë lugvogtoestande spuit nie, want dit kan lei tot:
  a) Verlaagde effektiwiteit aangesien die suspensie en verdamping van klein druppels in die lug (wat lei tot onvoldoende bedekking op die teikenarea).
  b) Skade aan ander sensitiewe gewasse en/of nie-teikenareas as gevolg van wegdrywing van die spuitwolk weg van die doelgebied af.

- Moet nie spuit wanneer die windspoed 15 km per uur oorskry nie.

Algemeen

- Verseker dat die lande akkuraat gemerk is en dat die lugbespuitingsoperateur presies weet watter lande gespuit moet word.
- Verkry ‘n versekering van die spuitoperateur dat aan die bogenoemde vereistes voldoen sal word en dat die betrokke data in 'n logboek saamgevat sal word vir toekomstige verwysing.

AANBEVELINGS

GEWAS	PRISM 20 WG (g/ha)	TOEDIENING
WINTERREËNVAL-STREEK **Koring, gars en hawer**	**Grondtoediening:** 10 – 12.5 g/ha PLUS 50 mℓ AGRAL 90/ 100 ℓ spuitmengsel **OF** 10 g/ha + 8 g/ha **CENTRIC 75 WG** PLUS 50 mℓ AGRAL 90/ 100 ℓ spuitmengsel **OF** 10 g/ha + 8 g/ha **CENTRIC 75 WG** + 500 mℓ/ha MCPA 400 SL **Lugtoediening:** 10 – 12.5 g/ha PLUS 100 mℓ AGRAL 90/ 100 ℓ spuitmengsel **OF** 10 g/ha + 8 g/ha **CENTRIC 75 WG** + 100 mℓ AGRAL 90 / 100 ℓ spuitmengsel **OF** 10 g/ha + 8 g/ha chlorsulfuron + 500 mℓ/ha MCPA 400 SL	Beste onkruidbeheer sal verkry word wanneer dit op aktief groeiende onkruide toegedien word wat nie onder stremmingstoestande verkeer nie. Die gewas moet in die 3 – 5 blaarstadium wees, maar nie later as 4 weke na onkruidopkoms nie. Wanneer MCPA of 2,4-D bygevoeg word, dien toe tussen die 7 (middelste dubbelriwwe vergroot) en 13 (baard van die top aartjies verleng) groeistadia van die koring, volgens die lys van groeistadia gepubliseer deur die LNR Kleingraaninstituut, Bethlehem. Gebruik die hoër dosis van AGRAL 90 of die mengsel met MCPA vir digte onkruidstand en vir die beheer van duiwekerwel, Kaapse dubbeltjie en ramenas in die 5 – 6 blaarstadium of waar grondvogtoestande versleg. Voeg altyd 'n drywingsbeheermiddel by die spuitmengsel tydens lugbespuiting.

Koring (Geplant met 'n planter)	**Grondtoedinging en lugtoediening:** 4.0 g/ha PLUS 8.0 g/ha **CENTRIC 75 WG** PLUS 100 mℓ AGRAL 90 / 100 ℓ spuitmengsel	Beste onkruidbeheer sal verkry word wanneer dit toegedien word op aktief groeiende onkruide wat nie onder stremmingstoestande groei nie. Onkruide moet nie groter as die 4-blaarstadium wees nie. Die gewas moet in die 3 – 5 blaarstadium wees.

ONKRUIDE WAT DEUR PRISM 20 WG IN DIE WINTERREËNVALSTREEK BEHEER SAL WORD

Amsickia menziesii	Vioolnek
Anagallis arvensis	Pimpernel
Cenia turbinate	Ganskos
Chenopodium album	Withondebossie
Emex australis	Kaapse dubbeltjie
Erodium moschatum	Turksnael
Fumaria muralis	Duiwekerwel
Oxalis latifolia	Rooituinsuring
Oxalis pes-caprae	Geelsuring
Pentzia suffruticosa	Kleinstinkkruid
Raphanus raphanistrum	Ramenas
Sisymbrium thellungii	Gewone wildemosterd
Stellaria media	Sterremuur
Vicia hirsuta	Kleinwieke
Vicia sativa	Breëblaarperswieke

GEWAS	PRISM 20 WG (g/ha)	TOEDIENING
SOMERREËNVAL STREEK **Koring** (droëland) **Gond- en Lugtoediening**	25 – 30 g/ha PLUS 10 g/ha **CENTRIC** PLUS 100 mℓ AGRAL 90 / 100 ℓ spuitmengsel.	Dien toe tussen die 2-blaarstadium en blom van die gewas. Onkruide wat nie deur skoffelaksie doodgemaak is nie of tekens van hergroei toon, sal nie beheer word nie.
	25 – 30 g/ha PLUS 10 g/ha **CENTRIC 75 WG** PLUS 320 mℓ/ha 2,4-D amien PLUS 100 mℓ AGRAL 90 / 100 ℓ spuitmengsel.	Dien toe tussen die 2-blaarstadium en blom van die gewas. Onkruide wat nie deur skoffelaksie doodgemaak is nie of tekens van hergroei toon, sal nie beheer word nie. Wanneer MCPA of 2,4-D bygevoeg word, dien toe tussen die 7 (middelste dubbelriwwe vergroot) en 13 (baard van die top aartjies verleng) groeistadia van die koring, volgens die lys van groeistadia gepubliseer deur die LNR Kleingraaninstituut, Bethlehem.
	25 – 30 g/ha PLUS 10 g/ha **CENTRIC 75 WG** PLUS 210 mℓ/ha 2,4-D ester PLUS 100 mℓ AGRAL 90 / 100 ℓ spuitmengsel.	Dien toe tussen die 2-blaarstadium en blom van die gewas. Onkruide wat nie deur skoffelaksie doodgemaak is nie of tekens van hergroei toon, sal nie beheer word nie. Wanneer MCPA of 2,4-D bygevoeg word, dien toe tussen die 7 (middelste dubbelriwwe vergroot) en 13 (baard van die top aartjies verleng) groeistadia van die koring, volgens die lys van groeistadia gepubliseer deur die LNR Kleingraaninstituut, Bethlehem.
	25 – 30 g/ha PLUS 10 g/ha **CENTRIC 75 WG** PLUS 750 mℓ/ha bromoxynil 225 PLUS	Dien toe tussen die 2-blaarstadium en blom van die gewas. Onkruide wat nie deur skoffelaksie doodgemaak is nie of tekens van hergroei toon, sal nie beheer word nie.

	100 mℓ AGRAL 90 / 100 ℓ spuitmengsel	
	25 – 30 g/ha PLUS 10 g/ha **CENTRIC 75 WG** PLUS 250 mℓ - 1,0 ℓ/ha MCPA SL PLUS 100 mℓ AGRAL 90 / 100 ℓ spuitmengsel	Dien toe tussen die 2-blaarstadium en blom van die gewas. Onkruide wat nie deur skoffelaksie doodgemaak is nie of tekens van hergroei toon, sal nie beheer word nie. Wanneer MCPA of 2,4-D bygevoeg word, dien toe tussen die 7 (middelste dubbelriwwe vergroot) en 13 (baard van die top aartjies verleng) groeistadia van die koring, volgens die lys van groeistadia gepubliseer deur die LNR Kleingraaninstituut, Bethlehem.

Opmerkings
- Dien toe nadat die eerste lentereën geval het.
- Beide die gewas en die onkruide moet aktief groei, gewoonlik na 10 – 15 mm reën.

ONKRUIDE WAT DEUR PRISM IN DIE SOMERREËNVAL STREEK BEHEER SAL WORD EN MAKSIMUM GROEISTADIUM

Amaranthus spp.	Misbredie	(4 – 8-blaarstadium)
Chenopodium album	Withondebossie	(4 – 8-blaarstadium)
Fallopia convolvulus	Wilde bokwiet	(6 blaarstadium)
Helianthus annus	Opslag sonneblom	(6-blaarstadium)
Polygonum aviculare	Litjiesgras	(4 – 8-blaarstadium)
Raphanus raphanistrum	Ramenas	(6 – 8-blaarstadium)
Rumex angiocarpus	Steenboksuring	(6 – 8-blaarstadium)
Senecio consanguineus	Bankrotbos	(6 – 8-blaarstadium)
Sisymbrium thellungii	Wilde mosterd	(4-blaarstadium)
Tribulus terrestris	Dubbeltjie	(10 cm deursnee)

ALGEMENE OPMERKINGS
- **PRISM 20 WG** moet na-opkoms toegedien word op aktief groeiende gewasse en onkruide (binne die aanbevole groeistadium).
- Alhoewel onkruide wat met **PRISM 20 WG** gespuit is onmiddellik ophou groei en nie meer met die gewas kompeteer nie, kan die visuele effek moontlik eers na 28 dae na toediening waargeneem word.
- Die byvoeging van ‘n buffer en ‘n benatter tot die spuitmengsel is noodsaaklik.
- Genoegsame grondvog moet in die wortelsone beskikbaar wees.
- Breëblaaronkruide wat na toediening van **PRISM 20 WG** ontkiem, sal nie beheer word nie.