

SIGNET 915 EC

GEbruiksaanwysings ingesluit
VERWYS NA BESONDERHEDE
SOOS OP HOUER / SAK GEDRUK
 Lotnommer
 Datum van vervaardiging

DIRECTIONS FOR USE ENCLOSED
REFER TO DETAILS AS PRINTED
ON CONTAINER / BAG
 Batch Number
 Date of manufacture

BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY

SIGNET 915 EC
HERBICIDE

Reg. No. L9071, Act/Wet No. 36 of/van 1947
 Namibian Reg. No. N-AR 1635
 1: 21/01/2013

An emulsifiable concentrate herbicide for the pre-emergence control of annual grasses and, under certain conditions, yellow nutsedge in various crops under different climatological conditions when combined with different broadleaf herbicides.

'n Emulgeerbare konsentraat onkruidodder vir die vooropkoms beheer van eenjarige grasse en, onder sekere omstandighede, geeluintjies in verskillende gewasse onder verskillende klimatologiese toestande, wanneer dit met verskillende breëblaaronkruid gekombineer word.

HRAC HERBICIDE GROUP CODE	K3	HRAC ONKRUIDDODERGROEPCODE
ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL		
S- Metolachlor (chloro-acetanilide) 915 g/ℓ	S-Metolachloor (chloorasetanilied)	

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

WARNINGS

- Handle with care.
- Poisonous if swallowed.
- May cause skin sensitisation.
- Toxic to fish.
- Store under lock and key in a cool place.
- Store away from food and feed.
- Keep out of reach of children, uninformed persons and animals.
- **In case of poisoning call a doctor and show him this label.**
- **Re-entry** – Do not enter treated area within 1 day after application 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 apply over water bodies and ensure that spray drift will not contaminate areas under treatment.

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

PRECAUTIONS

- Do not inhale spray mist.
- Avoid skin 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.
- Do not eat, drink or smoke while mixing or applying the product or before washing hands and face.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean applicator after use. Dispose of rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Prevent contamination of food, feeds, drinking water and eating utensils.
- Invert the empty container over the spray or mixing tank and allow it to drain for at least 30 seconds after the flow has slowed to a drip. Thereafter rinse the empty container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsate to the contents of the spray tank.
- Destroy the empty container and do not use for any other purpose.
- When **SIGNET 915 EC** is used in combination with other products, consideration should be given to the instructions and crop rotation requirements of those particular products.
- 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.

SYMPTOMS OF HUMAN POISONING

Sedation (calming), difficulty breathing and protrusion of the eyeball.

FIRST AID TREATMENT

Ingestion: If poisoning is suspected, seek **medical assistance immediately**. Remove the patient from further contact with pesticide and place them in a well-ventilated area. If the substance has been swallowed rapidly administer a large quantity of milk, egg whites, gelatin solution or, if these are not available large quantities of water. **Do not induce vomiting or give anything by mouth to an unconscious person.**

Eye Contact: In case of eye contact hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

Skin contact: In case of skin contact, wash with plenty of soap and water.
Consult a physician if irritation persists

NOTE TO PHYSICIAN

No specific antidote. Treat symptomatically and supportively. If ingested, induce emesis or lavage the stomach. Administration of an aqueous slurry of activated charcoal can be considered.

RESISTANCE WARNING

For resistance management, **SIGNET 915 EC** is a group code K3 herbicide. Any weed population may contain individuals naturally resistant to **SIGNET 915 EC** and other group code K3 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **SIGNET 915 EC** or any other group code K3 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 other herbicide group codes.
- Integrate other control methods (chemical, cultural, biological) into weed control programmes.

Since the occurrence of resistance cannot be forecast, users are advised to keep treated crops under close observation. If treatment is not effective following the use of **SIGNET 915 EC** as recommended, a resistant population may be present. If a resistant population is positively identified, consideration should be given to prompt use of a herbicide with a different mode of action for which there is no record of resistance to the relevant weed. For specific information on resistance management, contact the registration holder of this product.

USE RESTRICTIONS: MAIZE AND SWEETCORN

- Do not use **SIGNET 915 EC** on poorly drained soils or soils with a compaction layer, as under these conditions waterlogging can occur and the herbicide may cause crop injury.
- Do not apply **SIGNET 915 EC** to any crop or situation not mentioned in this instruction leaflet.
- Only apply **SIGNET 915 EC** using an accurate and safe application technique.
- If **SIGNET 915 EC** is used in a tank mix with other recommended herbicides, consideration should be given to the restrictions of those respective products.
- Do not use **SIGNET 915 EC** if wet and cold conditions may follow directly after an application as this may cause crop damage.
- Use lower rates on lighter soils and where the weed population pressure is low.
- Do not use on inbred parent plants of maize hybrids. Consult a representative of Meridian Agrochemical Company, the distributor or seed supplier.

Yellow nutsedge control (*Cyperus esculentus*)

- Optimum weed control is obtained on a fine, even and firm seedbed.
- **SIGNET 915 EC** will also give improved weed control (of yellow nutsedge) following thorough ploughing with a mould board plough immediately before planting.
- If the **SIGNET 915 EC** application is followed by at least 10 – 20 mm of soft penetrating rain (or irrigation) to leach **SIGNET 915 EC** into the soil prior to the emergence of *C. Esculentus* (normally 7 - 10 days after ploughing), weed suppression can be improved. These conditions are more likely to occur during the latter half of the planting season. More rain or irrigation is required on heavier soils to get good results. Therefore, very poor control sometimes occurs on turf soils.
- Rain after the **SIGNET 915 EC** application but before the *Cyperus esculentus* emergence is imperative for optimal *Cyperus esculentus* control. Therefore **SIGNET 915 EC** should be applied directly after the planting process in moist soil.
- When planting into dry soil (insufficient moisture for *Cyperus esculentus* germination) application of **SIGNET 915 EC** should be timed as close as possible to, but definitely before the first rains.

Herringbone grass and Bushveld Herringbone grass control (*Urochloa* spp.)

Urochloa species germinate very shallow and, in cases where no tillage or minimal tillage happen, poor control of *Urochloa* species may be experienced as a result of this shallow germination and even germination on the soil surface as well as the lack of seed incorporation into the soil profile.

MODE OF ACTION

Grass killers belonging to the chloroacetamide group of herbicides (that includes **SIGNET 915 EC**) are absorbed via the coleoptiles of grass weeds. Therefore, for good grass control the herbicide need to be present at lethal concentrations in the top $\pm$ 50 mm of the soil profile. The adsorption capacity of a soil for these herbicides, as well as the amount of water that moves through the soil profile with rain / irrigation, determines the resultant concentration of these herbicides in the top layers of the soil profile. As a result of the low adsorption capacity of sandy soils (0 - 15% clay, <1% organic matter) the amount of these herbicides may be reduced to sub-lethal concentrations in the top $\pm$ 50 mm following the occurrence of permeating rain (25 mm and more within one day). Persistent rain (50 mm and more distributed over 3 - 7 days) will have the same result. Therefore, it can happen that grasses germinate if such conditions prevail. A split application (as recommended in Table 3) is recommended if **SIGNET 915 EC** is used on such soils. Permeating and/or persistent rain after the split application will have the same result.

Consult the **Atrazine 900 WG** label for additional information.

DIRECTIONS FOR USE

Use only as directed.

MIXING INSTRUCTIONS

Half-fill the spray tank with suitable water, then add the required amount of **SIGNET 915 EC** to the water in the tank while agitating. Fill the spray tank to the desired volume with water. When **SIGNET 915 EC** is tank mixed with other products as recommended, soluble concentrates should be added to the water first. **SIGNET 915 EC** should then be added last, just before the required volume is reached.

Maintain constant, thorough agitation throughout mixing and spraying. **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.

COMPATIBILITY

The compatibility of **SIGNET 915 EC** 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 and the water quality may vary from farm to farm, it is recommended that a physical compatibility test be done prior to the tank mixture being made. **SIGNET 915**

EC is compatible with **Atrazine 900WG** (L 8890), **Cyclone** (L 8880), **Cyclone Elite** (L 8881), **Torpedo SC** (L 7655) and **Trooper SL** (L6806).

APPLICATION METHODS

Ensure that the equipment is correctly calibrated and is checked regularly during application to ensure even and accurate application. Any medium or high volume equipment may be used. A spray volume of at least 200 l/ha should be used for ground application and can be applied via flat fan-type nozzles, preferably the low drift type to avoid fine droplets. Use 30 l/ha for aerial application. **Constant agitation throughout the spray operation is essential.** Only clean water should be used.

Ground application:

SIGNET 915 EC may be applied with any properly calibrated medium or high volume sprayer which is equipped with an efficient agitation mechanism. The choice and arrangement of the fan-type spray nozzles should be so as to ensure adequate coverage, even distribution and optimal recovery of the herbicide. The recommended amount of **SIGNET 915 EC** should be applied in at least 200 l water/ha.

Post plant pre-emergence:

When planting into moist soil, **SIGNET 915 EC** must be applied within three days of planting (but preferably at planting) onto a fine, even, firm and freshly prepared weed free seedbed. To obtain good results rain or irrigation should follow application before the weeds emerge. If rainfall does not occur in time and weeds begin to emerge and develop, a shallow cultivation must be done in order to destroy these weeds and to mix the herbicide with the top 10 - 20 mm of soil.

When planting into dry soil (insufficient moisture for germination), **SIGNET 915 EC** must be applied as close as possible to, but definitely before, the first rain. Emerged weeds at the time of application will not be controlled by **SIGNET 915 EC**.

Pre-plant incorporated (maize only)

In order to obtain more reliable control of *C. esculentus*, **SIGNET 915 EC** can be incorporated shallow into the soil prior to planting. This incorporation may be done with a Kongskilde Triple K, a Fieldspan cultivator or similar implement. A roller should, in each case, be fitted to the rear of the implement. The working depth of the implement should be 75 - 100 mm to ensure effective incorporation into the top 37 - 50 mm of soil. To further ensure proper mixing of the **SIGNET 915 EC** with the soil, incorporation should be done at a speed of 9 - 11 km/h. Proper primary seedbed preparation should precede the incorporation of **SIGNET 915 EC**. The incorporation of **SIGNET 915 EC** in the latter half of the planting season is not recommended, sufficient results will be obtained from the pre-emergence application. Although the incorporation of **SIGNET 915 EC** may result in more reliable control of *C. esculentus* during the drier first half of the planting season, some rain is still required to moisten the top soil to allow the **SIGNET 915 EC** to be absorbed by the weeds. However, less rain is needed than after a pre-emergence application after planting.

Crop Post-emergence (maize, sweet corn)

SIGNET 915 EC has a very limited post-emergence effect. It may, however, be applied post-emergence of the crop immediately after cultivation i.e. when no weeds are present. Weeds already present after the cultivation will not be controlled.

Aerial application (Pre- and Post-emergence)

Aerial application may only be done by a registered aerial application operator using a registered and correctly calibrated aircraft according to the instructions of SANS 10118 (Aerial Application of Agricultural Remedies). It is important to 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;

Equipment

- Use suitable atomising equipment (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and coverage of the target area and will ensure the minimum loss of product through drift.
- The operator must use a nozzle set-up that will produce a droplet spectrum with the lowest possible relative span.
- All nozzles and atomisers should be positioned within the inner 60%-75% of the wingspan to prevent droplets from entering the wingtip vortices.

Application Parameters

- A minimum volume of 30 l spray mixture per ha is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy nor be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended.
- A droplet coverage of 20 – 30 droplets (pre-emergence) and 30-40 (post-emergence) per sq cm must be recovered at the target.
- A droplet spectrum with a VMD of 350 – 400 (pre-emergence) and 300-350 (post-emergence) microns is recommended. Ensure that the production of fine droplets, with a VMD less than 150 microns, is restricted to a minimum.
- The height of the spray boom should be maintained at between 3 and 4m above the target.
- Do not spray when the aircraft is in a climb, at the top of a turn or during a dive or when banking.

Meteorological Conditions

- The difference between the wet and dry bulb temperature readings as determined by a whirling hygrometer, must not exceed 8 °C.
- It is recommended to use a suitable anti-evaporant if the VMD of the droplets is less than 200-250 microns.
- Do not spray under turbulent, unstable conditions, or during the heat of the day when rising thermals and downdraughts occur.
- Do not spray under temperature inversion conditions (spraying in or above the inversion layer).
- Do not spray when the wind speed exceeds 15 km per hour.
- Application under temperature inversion conditions (spraying in or above the inversion layer) may lead to reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage). It may also lead to damage to other sensitive crops or non-target areas via the movement of the suspended spray cloud away from the target area.

SIGNET 915 EC may be applied aerially in a tank mixture with either **Atrazine 900WG** (L 8890), **Cyclone** (L 8880), **Cyclone elite** (L 8881) or **Torpedo** (L 7655) provided that the spray mixture is distributed evenly over the target area and the loss of spray material during application is restricted to a minimum.

Always obtain an assurance from the aerial spray operator that the above requirements are met.

Center Pivot Irrigation application

SIGNET 915 EC may be applied in irrigation water pre-emergence (after planting but before the weeds or the crop emerges) at the rates recommended on this label.

- Ensure that fields are accurately marked and 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.
- Only use center pivot systems that apply water uniformly.
- Prepare a mixture of one part of water to one part herbicide and inject it into the center pivot system using a positive displacement pump. Injecting a larger volume of a more dilute mixture per hour often provides more accurate calibration of metering equipment.
- Sufficient agitation must be maintained.
- Apply in 12.5 - 25 mm water. Use the lower water volume (12.5 mm) on coarser textured soils and the higher volume (25mm) on finer textured soils. More than 25 mm of water at application may result in reduced weed control by moving the herbicide below the weed germination zone in the soil.

Precaution for Center pivot applications:

- Apply only through irrigation systems that contain anti-siphon and check valves to prevent contamination of the well during shut down and overflow of the solution tank.
- Inject ahead of any right angle turn in the main line in order to ensure adequate mixing.
- Chemical injection pumps and water pumps must have interlocking controls to ensure simultaneous shut-off.
- Application when drift may occur, such as during windy conditions, or when system joints and connections are leaking, or when nozzles are not providing uniform distribution, may cause crop injury.
- Where sprinkler distribution patterns do not overlap enough this may lead to poor weed control. Where sprinkler distribution patterns overlap excessively, unacceptable residues or crop injury may result.

RECOMMENDATIONS AND APPLICATION RATES

Pre-emergence application of **SIGNET 915 EC** in combination with different products:

SIGNET 915 EC may be applied immediately following planting but pre-emergence with respect to maize and weeds or it may be shallowly incorporated into the soil just prior to planting. It may also be applied post-emergence after cultivation. Where **yellow nutsedge** (*Cyperus esculentus*) constitutes an important part of the weed population and planting commences during the first half of the planting season (prior to 20 October), it is recommended that a shallow incorporation of **SIGNET 915 EC** be carried out. Where **yellow nutsedge** is not a problem or where planting only commences during the second half of the planting season (after 20 October) the incorporation of **SIGNET 915 EC** is not recommended.

Since broadleaf weeds are inadequately controlled by **SIGNET 915 EC**, the use of a broadleaf herbicide in combination with **SIGNET 915 EC** is recommended. The broadleaf herbicide can be applied pre- or post-emergence. As post-emergence treatments afford more effective and also more reliable control of especially deep germinating broadleaf weeds such as *Datura* spp. and *Tribulus terrestris*, post-emergence treatments are preferred. The different combinations which may be used are indicated in the following tables.

The use of SIGNET 915 EC in stale seedbeds or minimum tillage or stubble mulch

- When minimum tillage or stubble mulch is used, weeds may have emerged at the time of planting. If the crops are planted under these conditions or into stale seedbeds, where grass weeds have already emerged and/or the broadleaf weeds have developed past the seedling stage, it is recommended that a suitably registered post emergence herbicide be applied to control these weeds prior to the use of **SIGNET 915 EC**
- In the case of minimum tillage or stubble, the density of the stubble and humus may affect the efficacy of **SIGNET 915 EC**. Therefore consult a representative of Meridian Agrochemical Company.
- All of the above dosage rates given apply to full cover sprays. In the case of band treatment over the rows the corresponding amount of herbicide should be calculated according to the band and row widths.

- Make sure that the crop is properly fertilized in order to ensure vigorous seedling growth.

Application methods – incorporation

- Use the higher application rates when **SIGNET 915 EC** is pre-plant incorporated.

Soils

- Use the higher application rates of **SIGNET 915 EC** where organic matter in the soil exceeds 1%
- On soils containing more than 30% clay broadleaf weeds may not be controlled satisfactorily pre-emergence and preference should be given to post-emergence control of broadleaf weeds.
- These low rates may result in poorer broadleaf control and shorter residual effect on soils with more than 20% clay. Thus, post-emergence control of broadleaf weeds as recommended in table 3 is preferred when crop rotation with sensitive crops is practiced.

Table 1: SIGNET 915 EC in tank mixture with Torpedo SC for broad spectrum pre-emergence weed control in maize

SOIL TYPE	% CLAY	SIGNET 915 EC(mℓ/ha)	Torpedo SC (mℓ/ha)	WEEDS CONTROLLED	
Light sand/sand	0-10%	400-650	70	<i>Digitaria sanguinalis</i> <i>Amaranthus hybridus</i> <i>Eleusine indica</i> <i>Chenopodium album</i> <i>Acanthospermum hispidum</i> <i>Echinochloa crusgalli</i> <i>Nicandra physilloides</i>	Crab Finger Grass Common Pigweed Goose grass Goose foot Bristly Starbur Barnyard Grass Apple of Peru
Loamy sand/sandy loam	11-20%	400-650	100		
sandy clay loam	21-30%	500-700	125		
sandy clay loam/sandy clay	31-40%	600-700	150		
sandy clay/turf	41-50%	600-800	170		
Suppression of:				<i>Cyperus esculentus</i>	Yellow nutsedge

Remarks:

- Consult the **Torpedo SC** label for crop rotation recommendations.

Table 2: SIGNET 915 EC in tank mixture with Atrazine 900WG for broad spectrum pre-emergence weed control in maize

SOIL TYPE	% CLAY	SIGNET 915 EC (mℓ/ha)	Atrazine 900WG (kg/ha)	WEEDS CONTROLLED	
Light sand/Sand	0-10%	700-900	1.3-1.7	<i>Amaranthus hybridus</i> <i>Cyperus esculentus</i> <i>Digitaria sanguinalis</i> <i>Datura ferox</i> <i>Tagetes minuta</i> <i>Eleusine indica</i> <i>Schkuhria pinnata</i> <i>Bidens pilosa</i> <i>Portulaca oleracea</i> <i>Urochloa panicoides</i>	Common Pigweed Yellow Nutsedge Crab Finger Grass Large Thornapple Khaki weed Goose Grass Dwarf Marigold Common Blackjack Purslane Herringbone grass
Loamy Sand/Sandy loam	11 – 20%	700-900	1.8-2.1		
Sandy clay loam	21-35%	900-1000	2.2-2.5		
Sandy clay loam/Sandy clay	36-40%	1000-1200	2.6-3.3		

Remarks:

- Consult the **Atrazine 900WG** label for crop rotation recommendations.
- Use the higher rate of **Atrazine 900WG** where longer residual action is needed with regards to broadleaf weed control, especially those that germinate late in the season such as **Khaki weed** (*Tagetes minuta*) and **Large Thorn apple** (*Datura ferox*)

The pre-emergence application of **SIGNET 915 EC** followed by a post-emergence application of different products.

Table 3: The application rate of SIGNET 915 EC applied pre-emergence or pre-plant incorporated followed by an early post emergence application of spray mixtures such as Cyclone, Cyclone Elite or Trooper SL (or combinations thereof) according to label recommendations.

		Pre-emergence	Post-emergence followed by:
SOIL TYPE	% Clay	Signet 915 EC (ℓ/ha)	ALL SOIL TYPES:
Sand/Loamy sand/Sandy Loam	0-20%	0.7-0.9	either 0.35 ℓ/ha Trooper SL + 0.75 – 1.0 ℓ/ha Cyclone Elite or 0.5 L/ha Trooper SL + 1.1 kg/ha Atrazine 900 WG + 100-200 m ℓ Partner per 100 ℓ spray mixture or 0.27-0.47 kg/ha Atrazine 900 WG + 0.4-0.7 ℓ/ha Cyclone + 0.18-0.35 ℓ/ha Acetak EC or 0.35 ℓ/ha Trooper SL + 0.4-0.7 ℓ/ha Cyclone + 0.27-0.47 kg/ha Atrazine 900 WG
Sandy clay loam	21-30%	0.8-1.0	
Sandy clay loam/sandy clay	31-40%	0.95-1.1	
Sandy clay/Turf	41-50%	0.95-1.3	

Consult the **Trooper SL**, **Atrazine 900 WG**, **Acetak EC**, **Cyclone** and **Cyclone elite** labels for the list of weeds for which control can be expected.

When applying these post emergence treatments, consideration should be given to the instructions and crop rotation recommendations given in each of the labels of the particular products used.

Sweetcorn:

- Do not use the above **Acetak EC**, **Cyclone**, **Cyclone Elite**, and **Trooper SL** post emergence treatments as a follow-up application or in combination with **SIGNET 915 EC** on sweet corn.

Weeds:

- Cyperus esculentus*
Use the higher rates of **SIGNET 915 EC** for improved control.
- Digitaria sanguinalis*
Use the higher application rates of **SIGNET 915 EC** where heavy infestations exist.

ACKNOWLEDGEMENT OF TRADEMARKS

Atrazine 90 WG (L 8890)
Cyclone (L 8880)
Cyclone Elite (L 8881)
Torpedo (L 7655)
Trooper SL (L 6806)

Meridian Agrochemical Company (Pty) Ltd
 Meridian Agrochemical Company (Pty) Ltd
 Meridian Agrochemical Company (Pty) Ltd
 Meridian Agrochemical Company (Pty) Ltd
 Meridian Agrochemical Company (Pty) Ltd

WAARSKUWINGS

- Hanteer versigtig.
- Giftig indien ingesluk.
- Mag jeukerigheid veroorsaak deur velkontak.
- Giftig vir visse.
- Bêre agter slot-en-grendel in 'n koel plek.
- Bêre weg van voedsel en voer.
- Hou buite bereik van kinders, oningeligte persone en diere.
- **In geval van vergiftiging kontak 'n geneesheer en toon hierdie etiket aan hom/haar.**
- **Herbetreding** - Moet nie behandelde gebiede binne 1 dag na die toediening betree nie, tensy beskermende oorklere gedra word.
- **Lugtoediening:** Stel al die bewoners in die onmiddellike omgewing van die gebied wat bespuit gaan word in kennis en reik die nodige waarskuwings uit. Moet nie oor wateroppervlaktes of aangrensende gebiede spuit of toelaat dat die spuitnewel dit besoedel nie.

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 effek 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 onkruid teen die betrokke middel, sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of vir nadelige effek op mens of dier of vir 'n gebrek aan prestasie van die betrokke middel as gevolg van versuim van die gebruiker om die 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

- Moenie spuitnewel inasem nie.
- Vermyn velkontak deur beskermende oorklere te dra wanneer die produk gemeng word.
- Was met seep en water na gebruik en na toevallige velkontak; so ook die besoedelde klere.
- Moet nie eet, drink of rook tydens vermenging of toediening van die produk of voordat hande en gesig gewas is nie.
- Vermyn wegdrywing van die spuitnewel op ander gewasse, weiding, riviere, damme en gebiede wat nie onder behandeling is nie.
- Maak toedieningsapparaat deeglik skoon na gebruik. Raak ontslae van spoelwater waar dit nie gewasse, weiding, riviere, damme en boorgate sal besoedel nie.
- Voorkom die besoedeling van voedsel, voer, drinkwater en eetgerei.
- Keer die leë houer om oor die spuit-of mengtenk en laat dit dreineer vir minstens 30 sekondes nadat die vloeï tot 'n drup verlangsaam het. Spoel daarna die leë houer **drie keer** uit met 'n volume water gelykstaande aan 'n minimum van 10% van die inhoud van die houer. Gooi die spoelwater by die inhoud van die spuittenk.
- Vernietig die leë houer en moet dit nie vir enige ander doel gebruik nie.
- As **SIGNET 915 EC** met ander middels in tenkmengsels gebruik word, moet die gebruiksaanwysings van die betrokke produk gevolg word.
- Moet nie **SIGNET 915 EC** 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 (Edms.) Bpk. aanvaar geen verantwoordelikheid vir enige negatiewe gevolge ervaar indien die instruksies op die etiket nie nagekom word nie, tensy 'n Meridian verteenwoordiger vooraf geraadpleeg is.

SIMPTOME VAN MENSLIKE VERGIFTIGING

Sedasie (kalmerend), sukkel met asemhaling en uitpeul van oogbol.

NOODHULPBEHANDELING

Ingesluk: As vergiftiging vermoed word, **verkry onmiddellik mediese hulp**. Verwyder die pasiënt van verdere blootstelling aan die produk en plaas hulle in 'n goed geventileerde area. Indien die stof ingesluk is dien vinnig 'n groot hoeveelheid melk, eierwit, gelatienoplossing, of indien hierdie nie beskikbaar is nie, groot hoeveelhede water aan die pasiënt toe. Moenie braking induseer of enige iets per mond aan 'n bewustelose persoon toedien nie.

Oogkontak: In die geval van oogkontak hou ooglede oop en was uit met 'n bestendige, ligte straal water vir ten minste 15 minute.

Velkontak: In die geval van velkontak was met baie seep en water.
Raadpleeg 'n geneesheer indien irritasie voortduur.

NOTA AAN GENEESHEER

Geen spesifieke teenmiddel is bekend nie. Behandel simptome en ondersteunend. Indien ingesluk, induseer braking of maagspoeling. Dien 'n waterige mengsel van geaktiveerde houtskool toe.

WEERSTANDSWAARSKUWING

Vir weerstandbestuur is **SIGNET 915 EC** 'n groepkode K3 onkruidodder. Enige populasie van 'n spesifieke onkruid mag individue insluit wat 'n natuurlike weerstand teen **SIGNET 915 EC** of enige ander groepkode K3 onkruidodder het. Indien hierdie onkruidodders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die onkruidpopulasie oorheers. Hierdie weerstandbiedende onkruid sal waarskynlik nie deur **SIGNET 915 EC** of enige ander groepkode K3 onkruidodder beheer word nie.

Om weerstand teen onkruidodders te vertraag:

- Vermyn die eksklusiewe en herhaaldelike gebruik van onkruidodders met dieselfde groepkode. Wissel af met, of gebruik tenkengsels van, geregistreerde produkte in verskillende onkruidoddergroepcodes.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in onkruidbeheerprogramme.

Aangesien die voorkoms van weerstand nie voorspel kan word nie, word gebruikers derhalwe gemaan om behandelde gewasse noukeurig dop te hou. Indien die behandeling nie doeltreffend is as gevolg van die gebruik van **SIGNET 915 EC** soos aanbeveel nie, mag 'n weerstandbiedende ras teenwoordig wees. Indien 'n weerstandbiedende ras positief geïdentifiseer word, moet oorweging daaraan geskenk word vir die onmiddellike gebruik van 'n onkruidodder met 'n ander metode van werking, waarvoor daar geen rekord van weerstand teen die betrokke onkruid is nie. Vir spesifieke inligting oor weerstandbestuur kontak die registrasiehouer van hierdie produk.

GEBRUIKSBEPERKINGS: MIELIES EN SUIKERMIELIES

- Moet nie **SIGNET 915 EC** op swak gedreineerde grond of grond met 'n kompaksielaag toedien nie. Die onkruidodder mag tydens versuip-toestande skade aan gewasse veroorsaak.
- Moet nie **SIGNET 915 EC** op enige gewas of situasie toedien wat nie op hierdie etiket verskyn nie.
- Dien **SIGNET 915 EC** slegs met behulp van akkurate en veilige toedieningstegnieke toe.
- As **SIGNET 915 EC** met ander middels in tenkengsels gebruik word, moet die gebruiksaanwysings van daardie betrokke produkte gevolg word.
- Moet nie **SIGNET 915 EC** toedien indien nat en koue toestande na 'n bespuiting verwag word nie. Dit kan gewasskade veroorsaak.
- Gebruik die laer dosisse op ligter gronde en waar die onkruidpopulasiedruk laag is.
- Moet nie op ingeteelde oerplante van mieliebasters toedien nie. Raadpleeg in 'n verteenwoordiger van Meridian Agrochemical Company (Edms.) Bpk., die verspreider of die saadverskaffer.

Geeluintjie (*Cyperus esculentus*) beheer

- Optimale onkruidbeheer word verkry op 'n fyn, egalige en ferm saadbed.
- **SIGNET 915 EC** sal ook verbeterde onkruidbeheer (geeluintjie) gee na 'n deeglike skaarploegbewerking onmiddellik voor plant.
- Indien **SIGNET 915 EC** toediening opgevolg word met minstens 10 - 20 mm sagte deurdringende reën (of besproeiing) om **SIGNET 915 EC** in die grond in te loog voor die opkoms van *C. esculentus* (gewoonlik 7 - 10 dae na deeglike grondbewerking), kan onkruidonderdrukking verbeter word. Hierdie toestande sal gewoonlik tydens die laaste helfte van die plantseisoen voorkom. Meer reën of besproeiing is op swaarder gronde nodig om goeie resultate te verkry. Om hierdie rede is beheer soms baie swak op turfgronde.
- Reënval na 'n **SIGNET 915 EC** toediening, maar voordat *Cyperus esculentus* opkom is noodsaaklik vir optimale *Cyperus esculentus* beheer. Gevolglik moet **SIGNET 915 EC** tydens of onmiddellik na die plantproses in klam grond toegedien word.
- Wanneer in droë grond geplant word (onvoldoende vog om *Cyperus esculentus* te laat ontkiem) moet die toediening van **SIGNET 915 EC** uitgestel word tot so na as moontlik aan, maar beslis voor, die eerste reën.

Beesgras en Bosveldbeesgras beheer (*Urochloa* spp.)

Urochloa spesies ontkiem baie vlak, en in gevalle waar geen- of minimumbewerking plaasvind, mag swak beheer van die grasse verkry word weens die vlak ontkieming op die grondoppervlak, asook die gebrek aan inwerking van die saad in die grondprofiel.

METODE VAN WERKING

Grasdoders wat deel uitmaak van die chloorasetamiedgroep van onkruidodders (wat **SIGNET 915 EC** insluit) word deur die koleoptiel van grasonkruid opgeneem. Daarom, vir goeie grasbeheer, is dit nodig dat die onkruidoder teen dodelike konsentrasies in die boonste ± 50 mm van die grondprofiel teenwoordig moet wees. Die adsorpsie kapasiteit van die grond vir hierdie onkruidodders, asook die hoeveelheid water wat deur die grondprofiel met reën/besproeiing beweeg, bepaal die gevolglike konsentrasie van hierdie onkruidodders in die boonste lae van die grondprofiel. As gevolg van die lae adsorpsiekapasiteit van sandgronde (0 - 15% klei, <1% organiese materiaal) sal die dosis van hierdie onkruidodders tot sub-letale konsentrasies in die boonste ± 50 mm verlaag word na die voorkoms van deurdringende reën (25 mm en meer binne een dag). Aanhoudende reën (50 mm en meer versprei oor 3 - 7 dae) sal dieselfde resultaat hê. Daarom, kan dit gebeur dat grasse ontkiem indien sulke weerstoestande voortduur. 'n Splittoediening (soos aanbeveel in Tabel 3) word aanbeveel indien **SIGNET 915 EC** op sulke gronde gebruik word. Deurdringende en/of aanhoudende reën na die splittoediening sal dieselfde resultaat hê.

Raadpleeg die **Atrazine 900 WG** etiket vir bykomende inligting.

GEBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

MENGINSTRUKSIES

Maak die spuittenk halfvol met skoon water en voeg dan die benodigde hoeveelheid **SIGNET 915 EC** by terwyl die water in die tenk geroer word. Vul die spuittenk verder met water totdat die verlangde volume verkry is. Wanneer **SIGNET 915 EC** in die spuittenk met ander produkte soos aanbeveel vermeng word, moet die oplosbare konsentrate eerste by die water gevoeg word. **SIGNET 915 EC** moet dan laaste bygevoeg word net voordat die verlangde volume in die spuittenk bereik word.

Die spuitmengsel moet tydens vermenging en toediening voortdurend in roering gehou word. **Tenkmengsels moet onmiddellik uitgespuit word en nie toegelaat word om in die spuittenk te staan nie.** Spuittoerusting moet deeglik uitgespoel word aan die einde van toediening.

VERENIGBAARHEID

Die verenigbaarheid van **SIGNET 915 EC** met ander produkte hang van die formulerings van die betrokke produkte af, asook van die kwaliteit van die spuitwater. Deurdat formulerings van tyd tot tyd verander, word dit aanbeveel om 'n fisiese verenigbaarheidstoets uit te voer voordat die tenkmengsel gemaak word. **SIGNET 915 EC** is verenigbaar met **Atrazine 900WG** (L 8890), **Cyclone** (L 8880), **Cyclone Elite** (L 8881), **Torpedo SC** (L 7655) en **Trooper SL** (L6806).

TOEDIENINGSMETODES

Verseker dat die spuittoerusting korrek gekalibreer is en gereeld gedurende toediening nagegaan word om egalige en akkurate toediening te verseker. Enige medium of hoë volume spuittoerusting mag gebruik word. 'n Spuitvolume van ten minste 200 l/ha moet gebruik word vir grondtoediening en dit kan met platwaaierspuitpunte toegedien word, verkieslik die lae-dryf tipe om fyn druppels te voorkom. Gebruik 30 l/ha vir lugbespuiting. Konstante roering deur die hele spuitoperasie is noodsaaklik. Gebruik slegs skoon water.

Grondtoediening:

SIGNET 915 EC kan met enige behoorlike gekalibreerde medium of hoë volume spuittoerusting wat met 'n doeltreffende roermeganisme toegerus is, toegedien word. Die keuse en rangskikking van die waaertipe-spuitpunte moet sodanig wees dat 'n egalige verspreiding en optimale herwinning van die onkruidoder verkry word. Die aanbevole hoeveelheid **SIGNET 915 EC** moet in ten minste 200 l water/ha toegedien word.

Na-plant vooropkoms:

Wanneer in klam grond geplant word, moet **SIGNET 915 EC** binne drie dae na plant (maar verkieslik tydens plant) op 'n fyn, egalige, ferm en vars voorbereide onkruidvrye saadbed toegedien word. Om goeie resultate te verkry, is dit noodsaaklik dat die onkruidtoediening deur reën of besproeiing opgevolg word, voordat die onkruid opkom. Indien reën nie betyds voorkom nie, en die onkruid begin opkom en ontwikkel, moet 'n vlak grondbewerking uitgevoer word om hierdie onkruid te vernietig en die onkruidodder met die boonste 10 - 20 mm grondlagie te vermeng.

Wanneer in droë grond (onvoldoende vog vir ontkieming) geplant word, moet **SIGNET 915 EC** so na as moontlik aan, maar beslis voor die eerste reën toegedien word. Onkruid wat reeds met toediening opgekom het, sal nie deur **SIGNET 915 EC** beheer word nie.

Voorplant ingewerk (slegs mielies)

Om beter betroubare beheer van *C. esculentus* te verkry, kan **SIGNET 915 EC** vlak in die grond voor plant ingewerk word. Hierdie inwerking kan met 'n Kongskilde Triple K, 'n Fieldspan wydwerkskoffel of 'n soortgelyke werktuig gedoen word. In al die bogenoemde gevalle moet 'n roller agter die werktuie geheg word. Die werkdiepte van die werktuie behoort 75-100 mm te wees sodat doeltreffende inwerking in die boonste 37- 50 mm grond plaasvind. Ten einde te verseker dat goeie vermenging van die **SIGNET 915 EC** met die grond plaasvind, moet die inwerking teen 'n spoed van 9 - 11 km / uur geskied. Deeglike aanvanklike saadbedvoorbereiding moet die inwerking van **SIGNET 915 EC** voorafgaan. Die inwerking van **SIGNET 915 EC** gedurende die laaste helfte van die plantseisoen word nie aanbeveel nie, aangesien vooropkomstoediening bevredigende resultate behoort te lewer.

Alhoewel die inwerking van **SIGNET 915 EC** meer betroubare beheer van *C. esculentus* gedurende die eerste droër deel van die plantseisoen sal verseker, word reën steeds benodig om die bogrond nat te kry sodat **SIGNET 915 EC** deur die grond opgeneem kan word. Minder reën is egter nodig as na 'n vooropkomstoediening na-plant.

Na-opkoms van die gewas (mielies, suikermielies)

SIGNET 915 EC het 'n beperkte na-opkoms werking. Dit kan egter na-opkoms van die gewas onmiddellik na 'n skoffelbewerking toegedien word, mits onkruid nie aanwesig is nie. Onkruid wat aanwesig is en nie deur die skoffelbewerking vernietig word nie sal nie beheer word nie.

Lugtoediening (Voor- en na-opkoms)

Lugtoediening mag slegs deur 'n geregistreerde lugbespuitingsoperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS 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. Dit is dus noodsaaklik dat die volgende criteria 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 60% -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 volume getoets is nie, kan die registrasiehouer nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige nadelige effekte indien hierdie produk teen 'n laer volume, as hierbo aanbeveel, uit die lug toegedien word nie.
- 'n Druppelbedekking van 20 - 30 druppels (vooropkoms) en 30-40 (na-opkoms) per vk cm moet op die teikenarea herwin word.
- 'n Druppelspektrum met 'n VMD van 350 - 400 (vooropkoms) en 300-350 (na-opkoms) mikron word aanbeveel. Verseker dat die produksie van fyn druppels, dié wat kleiner as 150 mikrons 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.

Meteorologiese Toestande

- Die verskil tussen die nat-en droëboltermometer lesings soos deur 'n swaaihygrometer bepaal, moet nie 8 °C oorskry nie.
- Die byvoeging van 'n geskikte anti-wegdryfmiddel word aanbeveel indien die VMD van die druppels kleiner as 200-250 mikron is.
- Moet nie tydens turbulente en onstabiele weerstoestande of gedeurende die hitte van die dag toedien wanneer stygende en dalende lugbewegings plaasvind nie.
- Moenie onder temperatuurinversie-toestande (deur bokant of binne-in die inversielaag te spuit) toedien nie. Dit kan lei tot:
 - verminderde effektiwiteit as gevolg van die suspensie en verdamping van klein druppels in die lug (onvoldoende bedekking op teikenareas).
 - skade aan ander sensitiewe gewasse of nie-teikenareas as gevolg van die beweging van die spuitwolk weg van die teikenarea af.
- Moenie spuit indien die windspoed 15 km per uur oorskry nie.

SIGNET 915 EC kan in 'n tenkmengsel met **Atrazine 900WG** (L 8890), **Cyclone** (L 8880) **Cyclone elite** (L 8881) of **Torpedo** (L 7655) deur middel van lugbespuiting toegedien word mits die spuitstof egalig oor die teikengebied versprei word en die verlies aan spuitmiddel tydens toediening tot 'n minimum beperk word.

Verkry 'n versekering van die spuitoperateur dat aan die bogenoemde vereistes voldoen sal word.

Toediening deur spilpuntbesproeiing

SIGNET 915 EC kan in besproeiingswater vooropkoms (na plant maar vooropkoms van die onkruid of die gewas) toegedien word teen toedieningshoeveelhede soos op hierdie etiket aanbeveel.

- Verseker dat die lande akkuraat gemerk is en dat die lugbespuitingsoperateur weet presies watter lande gespuit moet word.
- Verkry 'n versekering van die lugbespuitingsoperateur dat aan die bogenoemde vereistes voldoen sal word.
- Gebruik slegs spilpunte wat water egalig toedien.
- Berei 'n mengsel voor met 'n minimum van een deel water tot een deel onkruiddoder en spuit die mengsel met 'n positiewe verplasende pomp in die spilpuntsisteem in. Deur die inspuit van groter volumes van 'n meer verdunde mengsel per uur kan 'n meer akkurate kalibrasie van die meettoerusting verkry word.
- Handhaaf voldoende roering.
- Dien toe in 12,5 - 25 mm water. Gebruik die lae volume water (12,5 mm) op growwe tekstuurgronde en die hoë volume water (25mm) op gronde met 'n fyner tekstuur. Meer as 25 mm water met toediening mag die onkruiddoder dieper as die ontkiemingsone van die onkruid beweeg en sodoende onkruidbeheer nadelig beïnvloed.

Voorwaardes vir spilpuntoedienings:

- Dien slegs toe deur 'n spilpunt wat 'n terugsyferingsstelsel besit met kleppe wat die besoedeling na die bron sal verhoed gedurende die afsluit of oorloop van die oplossingstank.
- Spuit voor enige reghoekige draai op die hooflyn in om voldoende vermenging te verseker.
- Chemiese inspuitpompe en waterpompe moet ineengeskakelde beheermeganismes hê om gelyktydige afsluiting te verseker.
- Toediening wanneer wegdrywing 'n probleem mag wees, soos tydens winderige toestande, of as lasplekke of verbindings lek, of as spuitpunte nie egalige verspreiding lewer nie, mag gewasskade veroorsaak.
- Indien sprinkelaarspuitpatrone nie voldoende oorvleuel nie, kan swak onkruidbeheer verkry word. Indien sprinkelaarspuitpatrone egter oormatig oorvleuel, kan onaanvaarbare residue of gewasskade voorkom.

AANBEVELINGS EN TOEDIENINGSHOEVEELHEDE

Vooropkomstoediening van SIGNET 915 EC in kombinasie met verskillende produkte:

SIGNET 915 EC kan onmiddellik na plant, maar vooropkoms met betrekking tot mielies en onkruid toegedien word, of dit kan net voor plant vlak in die grond ingewerk word. Dit kan ook as 'n na-opkomsbespuiting na 'n skoffelbewerking toegedien word.

Waar **geeluintjies** (*Cyperus esculentus*) 'n belangrike deel van die onkruidpopulasie uitmaak en die gewas die eerste helfte van die plantseisoen (voor 20 Oktober) geplant word, word dit aanbeveel dat **SIGNET 915 EC** vlak in die grond ingewerk word. Waar **geeluintjies** nie 'n probleem is nie of waar die

gewas tydens die tweede helfte van die plantseisoen (na 20 Oktober) geplant word, word die inwerk van **SIGNET 915 EC** nie aanbeveel nie.

Deurdat **SIGNET 915 EC** breëblaaronkruid onvoldoende beheer, word dit aanbeveel om 'n geskikte breëblaaronkruid in kombinasie met **SIGNET 915 EC** te gebruik. Die breëblaaronkruid kan of vooropkoms of na-opkoms toegedien word. Deurdat na-opkomsbehandelings meer doeltreffende asook meer betroubare beheer van veral diepontiende breëblaaronkruid soos *Datura* spp. en *Tribulus terrestris* gee, word na-opkomstoedienings verkies. Die verskillende kombinasies wat gebruik kan word, word in die volgende tabelle aangedui.

Die gebruik van SIGNET 915 EC in ou saadbeddings, minimumbewerkings- of stoppelbewerkingslande

- Waar minimum- of stoppelbewerking toegepas word, mag onkruid ten tye van plant, ontkiem het. Indien die gewas geplant word onder hierdie toestande of in 'n ou saadbed geplant word, waar die grasonkruid alreeds opgekom het en/of die breëblaaronkruid verder as die saailingstadium ontwikkel het, word dit aanbeveel om 'n toepaslike geregistreerde na-opkoms onkruid toe te dien wat hierdie onkruid sal beheer voor die gebruik van **SIGNET 915 EC**.
- By minimumbewerking of stoppelbewerking kan die digtheid van die stoppels en humus die werking van **SIGNET 915 EC** beïnvloed. Raadpleeg dus 'n verteenwoordiger van Meridian Agrochemical Company (Edms.) Bpk.
- Die toedieningshoeveelhede hieronder aangegee, geld vir algehele dekbespuiting. In die geval van strookbehandeling op die rye moet die hoeveelheid onkruid toe in ooreenkomstig met die strookbreedte en rywydte bereken word.
- Verseker voldoende bemesting om die gewassaailinge kragtig te laat groei.

Toedieningsmetodes - inwerking

- Gebruik die hoër toedieningshoeveelheid van **SIGNET 915 EC** wanneer dit voor plant ingewerk word.

Gronde

- Gebruik die hoër toedieningshoeveelheid van **SIGNET 915 EC** indien die organiese materiaalinhoud van die grond 1% oorskry.
- Op gronde wat meer as 30% klei bevat, mag breëblaaronkruid nie voldoende vooropkomsbeheer word nie en behoort voorkeur aan na-opkomsbeheer van breëblaaronkruid gegee te word.
- Hierdie lae dosisse mag ook swakker breëblaaronkruidbeheer en korter nawerking op gronde met meer as 20% klei tot gevolg hê. Gevolglik behoort na-opkomsbeheer van breëblaaronkruid soos aanbeveel in Tabel 3 voorkeur te geniet wanneer wisselbou met gevoelige gewasse gedoen word.

Tabel 1: SIGNET 915 EC in 'n tenkmengsel met Torpedo SC vir breëspektrum vooropkoms onkruidbeheer in mielies.

GRONDTIPE	% KLEI	SIGNET 915 EC (mℓ/ha)	Torpedo SC (mℓ/ha)	ONKRUIDE WAT BEHEER SAL WORD	
Ligte sand/sand	0 - 10%	400-650	70	<i>Digitaria sanguinalis</i> <i>Amaranthus hybridus</i>	Kruisvingergras Gewone misbredie
Leemsand/sandleem	11 - 20%	400-650	100	<i>Eleusine indica</i> <i>Chenopium album</i>	Jongosgras Withondebossie
Sandkleileem	21 - 30%	500-700	125	<i>Acanthospermum hispidum</i>	Regopsterklits
Sandkleileem/Sandklei	31 - 40%	600-700	150	<i>Echinochloa crusgalli</i> <i>Nicandra physilloides</i>	Hanepootmanna Basterappelliefie
Sandklei/Turf	41 - 50%	600-800	170		
Onderdrukking van:				<i>Cyperus esculentus</i>	Geeluintjie

Opmerkings:

- Raadpleeg die **Torpedo SC** etiket vir wisselbou-aanbevelings.

Tabel 2: SIGNET 915 EC in 'n tenkmengsel met Atrazine 900WG vir breëspektrum vooropkoms onkruidbeheer in mielies.

GRONDTIPE	% KLEI	SIGNET 915 EC (mℓ/ha)	Atrazine 900WG (kg/ha)	ONKRUIDE WAT BEHEER SAL WORD	
Ligte sand/ Sand	0- 10%	700-900	1.3-1.7	<i>Amaranthus hybridus</i> <i>Cyperus esculentus</i>	Gewone misbredie Geeluintjie
Leemsand/ Sandleem	11-20%	700-900	1.8-2.1	<i>Digitaria sanguinalis</i> <i>Datura ferox</i>	Kruisvingergras Grootstinkblaar
Sandkleileem	21-35%	900-1000	2.2-2.5	<i>Tagetes minuta</i> <i>Eleusine indica</i>	Kakiebos Jongosgras
Sandkleileem/ Sandklei	36-40%	1000-1200	2.6-3.3	<i>Schkuhria pinnata</i> <i>Bidens pilosa</i> <i>Portulaca oleracea</i> <i>Urochloa panicoides</i>	Klein kakibos Gewone knapsekêrel Porslein Beesgras

Opmerkings:

- Raadpleeg die **Atrazine 900WG** etiket vir wisselbou-aanbevelings.
- Gebruik die hoër dosis van **Atrazine 900WG** waar langer nawerking ten opsigte van breëblaaronkruid verlang word, veral dié wat laat in die seisoen ontkiem, soos **kakiebos** (*Tagetes minuta*) en **Grootstinkblaar** (*Datura ferox*).

Die vooropkomstoediening van SIGNET 915 EC gevolg deur 'n na-opkomstoediening van verskillende produkte.

Tabel 3: Die toedieningshoeveelheid van SIGNET 915 EC vooropkoms toegedien of voor-plant ingewerk, gevolg deur 'n vroeë na-opkomstoediening van spuitmengsels soos Cyclone, Cyclone Elite of Trooper SL (of kombinasies daarvan) volgens etiketaanbevelings.

		Vooropkoms	Na-opkoms gevolg deur:
GRONDTIPE	% KLEI	Signet 915 EC (ℓ/ha)	ALLE GRONDTIPES:
Sand/Leemsand/Sandleem	0-20%	0.7 – 0.9	of 0.35 ℓ/ha Trooper SL + 0.75 – 1.0 ℓ/ha Cyclone Elite of 0.5 L/ha Trooper SL + 1.1 kg/ha Atrazine 900 WG + 100-200 mℓ Partner per 100 ℓ spuitmengsel of 0.27-0.47 kg/ha Atrazine 900 WG + 0.4-0.7 ℓ/ha Cyclone + 0.18-0.35 ℓ/ha Acetak EC of 0.35 ℓ/ha Trooper SL + 0.4-0.7 ℓ/ha Cyclone + 0.27-0.47 kg/ha Atrazine 900 WG
Sandkleileem	21-30%	0.8 – 1.0	
Sandkleileem/ Sandklei	31-40%	0.95 – 1.1	
Sandklei/Turf	41-50%	0.95 – 1.3	

Raadpleeg die **Trooper SL**, **Atrazine 900 WG**, **Acetak EC**, **Cyclone** en **Cyclone elite** etikette vir die lys van onkruid wat beheer kan verwag word.

By die toepassing van hierdie na-opkoms behandelings, moet oorweging geskenk gegee word aan die instruksies en wisselbou-aanbevelings wat in elk van die etikette van die betrokke produkte wat gebruik word, verskyn.

Suikermielies:

- Moet nie die bogenoemde **Acetak EC**, **Cyclone**, **Cyclone Elite** en **Trooper SL** na-opkomsbehandelings as 'n opvolgtoediening of in kombinasie met **SIGNET 915 EC** op suikermielies gebruik nie.

Onkruid:

- *Cyperus esculentus*
Gebruik die hoër dosis van **SIGNET 915 EC** vir verbeterde beheer.
- *Digitaria sanguinalis*
Gebruik die hoër toedieningshoeveelheid van **SIGNET 915 EC** waar hoë infestasies voorkom.

ERKENNING VAN HANDELSMERKE

Atrazine 90 WG (L 8890)
Cyclone (L 8880)
Cyclone Elite (L 8881)
Torpedo (L 7655)
Trooper SL (L 6806)

Meridian Agrochemical Company (Edms.) Bpk.
Meridian Agrochemical Company (Edms.) Bpk.
Meridian Agrochemical Company (Edms.) Bpk.
Meridian Agrochemical Company (Edms.) Bpk.
Meridian Agrochemical Company (Edms.) Bpk.