

ONKRUIDDODERGROEP	F <sub>2</sub> , G & K <sub>3</sub>	HERBICIDE GROUP
-------------------	-------------------------------------	-----------------

Aktiewe bestanddele / Active ingredients:		
mesotrion (callistemoon) / mesotrione (callistemone)	25 g/l	
S-metolachlor (chloro-setanilide) / S-metoachlor (chloroacetanilide)	250 g/l	
glifosaat (glisien) / glyphosate (glycine)	250 g ae/l	

UN not classified / nie geklassifiseerd

Product names marked ® or ™, the ALLIANCE FRAME, the SYNGENTA Logo and the PURPOSE ICON are Trademarks of a Syngenta Group Company

**'n Suspensiekonsentraat sistemiese na-opkomsnkruidodder vir die beheer van eenjarige breëblaaronkruid, grasse en die onderdrukking van sekere onkruid in glifosaat verdraagsame mielies.**

**A suspension concentrate systemic post-emergence herbicide for the control of annual broadleaf weeds, grasses and the suppression of certain weeds in glyphosate tolerant maize.**

**EMERGENCY TEL. / NOOD TEL.**  
 ++27 (0) 8312 33 911  
 (Bateleur 911)

© SYNGENTA, AG

Registration holder / Registrasiehouer:  
**Syngenta SA (Pty) Ltd. / (Edms) Bpk.**  
 (Co./Mpy Reg. No. 1998/013761/07)  
 Private Bag / Privaatsak X 60  
 HALFWAY HOUSE, 1685 RSA.  
 Tel. (011) 541-4000

Batch No

Date of Manufacture


**CAUTION  
 VERSIGTIG**


## 1. WARNINGS:

- **Withholding periods:** (Minimum number of days between last application and harvest).
  - **Maize - grazing** ..... **56 days**
  - **Greenmealies** ..... **56 days**
- May irritate the eyes and skin.
- Keep out of reach of children, uninformed persons and animals.
- Store in a cool, dry place away from food and feed.
- **Do not use in sweetcorn or popcorn.**
- **Re-entry:** do not enter treated area until spray deposit has dried, unless wearing protective clothing.

- Avoid spray drift onto susceptible crops, grazing, rivers, dams and areas not under treatment.

### For safety after spraying:

- Clean applicator thoroughly after use.
- Do not spray, drain or flush equipment on or near trees or plants or where their roots may extend.
- Dispose of wash water where it will not contaminate crops, grazing, rivers, dams or areas not under treatment.
- Destroy empty container and do not re-use for any other purpose.
- Change and wash your work clothes.
- Wash yourself.

## 3. RESISTANCE

For resistance management, **HALEX GT** is a group code **F<sub>2</sub>, G** and **K<sub>3</sub>** herbicide. Any weed population may contain individuals naturally resistant to group code **F<sub>2</sub>, G** and/or **K<sub>3</sub>** herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly and exclusively in programs. These resistant weeds may not be controlled by group code **F<sub>2</sub>, G** and/or **K<sub>3</sub>** herbicides.

To delay herbicide resistance:

1. Avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or tank mix with products from different herbicide group codes.
2. Integrate other control methods (chemical, cultural, biological) into weed control programs.
3. A good weed resistance management strategy includes a herbicide program that contains two or more modes of action. **HALEX GT** contains three herbicide active ingredients and three modes of action and can be an effective component of a weed resistance management strategy.

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

## 2. PRECAUTIONS:

- Do not eat, drink or smoke whilst handling this product.
- Prevent contamination of food, feed, drinking water and eating utensils.

### For safety when mixing:

- Wear eye protection (face shield). If you get **HALEX GT** in your eyes, flush it out immediately with running water for at least 15 minutes.
- Wear rubber gloves. If you get it on your skin, wash it off at once.
- If you get it on your clothes, change and wash them.
- Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsing to the contents of the spray tank before destroying the container.

### For safety when spraying:

- Avoid inhalation of spray mist.
- Avoid contact with the spray as far as possible.

### Triazine (Group B) and Acetolactate Synthase (Group C-) Resistance

Naturally occurring biotypes of certain broadleaf and grass weed species with resistance to triazine or ALS herbicides are known to exist. If weed biotypes resistant to triazine or ALS inhibitors are present in the field, **HALEX GT** should control them.

### Glyphosate Resistance (Group G)

Some naturally occurring weed biotypes resistant to glyphosate may exist through normal genetic variability in any weed population.

The repeated use of herbicides with the same mode of action is known to lead, under certain conditions, to a selection of resistant weeds.

Certain agronomic practices reduce the likelihood that resistant weed populations will develop and integrated strategies are known to manage such problem weeds. Glyphosate is one of the active ingredients in **HALEX GT**, so glyphosate resistance management is critical.

**HALEX GT** will control broadleaf weeds that are showing increased tolerance or resistance to glyphosate.

**HALEX GT** will not provide control of emerged grasses that are resistant to glyphosate. For control of glyphosate resistant grass weeds, a weed control program that includes pre-emergence herbicides e.g. DUAL GOLD (L5749), GARDOMIL GOLD (L6246), GESAPRIM SUPER (L3914), PRIMAGRAN GOLD (L7308), CALLISTO (L6795), CAMIX (L8089) LEXAR (L8326) and CAMIX PLUS (L8327) will reduce the dependence on glyphosate.

The best weed management practice includes the diversification of glyphosate dependent weed control programs with alternative mode of action herbicides or cultural practices.

1. In glyphosate tolerant (GT) maize do not use more than two applications of a glyphosate based herbicide in the same season. Diversify with alternative mode of action herbicides and/or cultural practices.
2. Use alternative (non-glyphosate) burn down and/or residual herbicides for GT crops likely to require more than one application of glyphosate.
3. To help manage GT resistant volunteers rotate GT crops with conventional or non-GT crops.
4. Use full labelled rates. Strive to get 100% control to prevent resistance and minimize weed escapes.
5. Monitor treated weed populations for any loss of field efficacy.
6. Contact your local extension specialist, certified crop advisor, and/or Syngenta representative for herbicide resistance management and/or integrated weed management recommendations.

Due to the fact that resistance weed populations vary in size and localities and are difficult to ascertain, it is essential that each field must be inspected annually to identify possible resistance early. If the preventative measures discussed above are not strictly adhered to **SYNGENTA** cannot be held responsible for the failure of **HALEX GT** to control resistant weeds

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

#### 4. USE RESTRICTIONS:

##### 4.1 General

1. **Do not** use **HALEX GT** on inbred parent lines of maize hybrids or newly released cultivars without first consulting with your chemical supplier or with the seed company concerned.
2. **HALEX GT** can only be applied post-emergence to glyphosate tolerant (e.g. Roundup Ready® and Agrisure® GT) maize only.
3. An application of **HALEX GT** to a maize hybrid that is not glyphosate tolerant will result in crop death.
4. **Do not** apply **HALEX GT** through any irrigation system.
5. **Do not** apply **HALEX GT** by aerial application.
6. Disturbance of soil after both pre- and/or post-emergence applications can result in re-germination of weeds resulting in reduced weed control.
7. When weeds are stressed due to drought, heat, lack of fertility, flooding, or prolonged cool temperatures, control can be reduced or delayed since the weeds are not actively growing. Weed escapes or re-growth may occur when application is made under prolonged stress conditions. Optimum weed control will be obtained if an application of **HALEX GT** is made following label directions when weeds are actively growing.
8. Crop injury may occur under extreme weather conditions or when the crop is under stress due to inadequate or abnormally high moisture levels or extreme temperatures or extreme temperature changes. Prolonged overcast conditions may lead to temporary crop bleaching.
9. If an activating rain (10 - 20 mm) is not received within 7 - 14 days after the post-emergence application of **HALEX GT**, residual weed control will be reduced.
10. Avoid drift onto adjacent crops. Severe damage or destruction may be caused by contact of **HALEX GT** to any vegetation (including leaves, green stems, exposed non-woody roots, or fruit) of crops, trees, and other desirable plants to which treatment is not intended.
11. Severe maize injury resulting in yield loss may occur if **HALEX**

**GT** is applied

- a) post-emergence in a tank mix with emulsifiable concentrate grass herbicides.
  - b) post-emergence to maize crops that were treated with soil insecticides containing organophosphate e.g. terbufos or chlorpiryphos (see 11a & b below)
  - c) foliar post-emergence in a tank mix with any organophosphate or carbamate insecticide.
12. **Do not** apply **HALEX GT**
    - a) within 28 days of a soil applied organophosphates (e.g. terbufos) or carbamate insecticide had been applied at planting
    - b) in tank mixture with organophosphate(e.g. terbufos) or carbamate (e.g. methomyl) insecticides for foliar applications or
    - c) within 7 days before or within 7 days after organophosphate (e.g. terbufos) or carbamate (e.g. methomyl) or carbamate insecticide for foliar applications
  13. **Do not** cultivate maize within 7 days before or after an **HALEX GT** application as weed control from the **HALEX GT** application may be reduced.
  14. **Do not** apply **HALEX GT** with suspension fertilizers or urea ammonium nitrate (UAN) as the carrier.
  15. To avoid contamination, it is recommended that the spray system be thoroughly cleaned with water and a commercial tank cleaner before and after each use.

#### 4.2 Follow-on crops:

1. If the maize crop is lost or destroyed following an application of **HALEX GT**, follow the rotational guidelines below.
2. If **HALEX GT** is applied sequentially or in a tank mix with other herbicides, refer to the rotational guidelines on all other herbicide labels and follow the most restrictive guidelines.
3. The following waiting periods or rotational guidelines should be adhered to:

Wheat and barley	1 month
Grain sorghum	2 months
Potatoes	6 months
Soybeans, dry beans, groundnuts, sunflowers and cotton	9 months
All other crops	24 months

4. All rotational crops should be planted only after thorough cultivation. Since the product is metabolised by microbial activity, periods of low microbial activity e.g. cold winters or very dry summers might extend the residual activity of **HALEX GT**.

**Contact your local SYNGENTA representative to discuss crop rotation and crop protection programmes to follow before embarking on any pH adjustment programme.**

#### 4.3 Spray drift

1. Avoid spray drift at all times to adjacent crops and especially to adjacent non glyphosate tolerant crops.
2. The interaction of equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making a decision to apply.
3. The pesticide should only be applied when the potential for drift to adjacent sensitive areas, (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).
4. Do not apply when weather conditions may cause drift to non-target areas.
5. The most effective way to reduce spray drift potential is to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavourable environmental conditions.

#### 4.4 Factors affecting weed control in post-emergence applications:

1. When applying **HALEX GT** post-emergence, make sure that the application is on the true leaves of the weeds – cotyledons are not true leaves.
2. Applications should be done on weeds that are actively growing. **HALEX GT** is a systemic herbicide, which should be absorbed and translocated to be effective. This is not possible with plants under stress.
3. When weeds are stressed due to drought, heat, lack of fertility, flooding or prolonged cool temperatures, control can be reduced or delayed since the weeds are not actively growing. Weed escapes may occur when application is made under prolonged stress conditions. Optimum weed control will be obtained if application of **HALEX GT** is delayed until the stress conditions have ended and weeds are once again actively growing. Care should be taken that the target weeds are still within the indicated growth stages at application.
4. Temporary crop injury (bleaching) may occur under extreme weather conditions or when the crop is under stress due to inadequate or abnormally high moisture levels or extreme temperatures. Prolonged overcast conditions may also lead to temporary crop bleaching.

**5. DIRECTIONS FOR USE:** Use only as indicated.

##### 5.1 Compatibility:

Always refer to labels of other pesticide products for mixing directions and precautions which may differ from those outlined here. Use in accordance with the most restrictive of label limitations and precautions.

Use the registered dosages as indicated on the labels.

The compatibility of **HALEX GT** with other products may be influenced by the formulation of the products involved as well as the quality of the water. Since the formulation of other products may change without the knowledge of Syngenta and the quality of water may vary from farm to farm, a physical compatibility test should always be carried out prior to application.

**HALEX GT** is compatible with COMPLEMENT SUPER (L8169), KARATE ZEON (L6330), KARATE EC (L3752)

##### 5.2 Dilution water:

Use only clean water and buffer with a registered buffer.

##### 5.3 Mixing instructions:

Follow the mixing instructions for adding **HALEX GT** to the spray tank:

1. Only use sprayers in good running condition with good agitation. Ensure the sprayer is cleaned according to instructions on label of the product used prior to **HALEX GT**. Use only clean water for the spray solution. Ensure that all in-line strainer and nozzle screens in the sprayer are 50-mesh or coarser. Screens finer than 50-mesh should not be used.
2. Begin to fill spray tank or premix tank with clean water and engage agitator. Agitation must be continued throughout the entire mixing and spraying procedure.
3. When the sprayer or premix tank is half full of water, add ammonium sulphate (e.g. VELOCITY GLYFO) and agitate until completely dispersed.
4. Add **HALEX GT** slowly and agitate until completely dispersed. Wait at least 1 minute after the last of the **HALEX GT** has been added to the tank to allow for complete dispersion. A longer agitation period may be required to disperse **HALEX GT** when using cold water from sources such as deep drilled wells.
5. If tank mixing, add the tank mix product next e.g. KARATE EC.
6. Finally, add the adjuvant and then continue to fill tank to desired level with water.
7. Fill remainder of the spray tank with water.

#### 5.4 Cleaning equipment after application

Special attention must be given to cleaning equipment before spraying a crop other than glyphosate tolerant maize.

Flush the tank, hoses, boom and nozzles with clean water.

1. Prepare a cleaning solution of 1 litre of household ammonia per 25 litre of water.
2. Use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. If a pressure washer is not available, completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
3. Flush hoses, spray lines, and nozzles for at least 1 minute with the cleaning solution.
4. Repeat this process two times and then flush the whole system with clean water.

#### 5.5 Ground application:

**HALEX GT** must be applied the same day as mixing.

Apply by means of a tractor mounted boom sprayer which is correctly calibrated with continuous agitation to deliver at least 200 - 300 l spray mixture/ha. Avoid overlapping of spray swaths.

Flat fan hydraulic nozzles (110°) are recommended for optimum coverage.

In certain cases, sleeve boom sprayers may be used for post-emergence applications provided the following are adhered to:

1. Avoid drift at all times.
2. Sleeve boom sprayers must be correctly calibrated, well maintained and fitted with the correct nozzles.
3. The air flow system on a sleeve boom sprayer should work properly and sprays should always cover the target plant fully.
4. The use recommendations as on this label should be followed and no changes in rates or product combinations or adjuvants should be done other than indicated in this label.
5. Droplet sizes that are prone to drift should be eliminated by the correct choice of nozzles.

If these precautions are not adhered to the registration holder cannot be held responsible for any non performance or damages suffered.

Rain or irrigation of 10 - 20 mm is needed after application to leach the chemical into the germinating zone. If this precipitation does not happen within 10 - 14 days of application, reduced efficacy can be expected.

#### 6. CROPS:

##### 6.1 MAIZE: (Glyphosate tolerant maize)

1. **HALEX GT** may only be applied post-emergence only in glyphosate tolerant maize (e.g. Roundup Ready®, Agrisure® GT) for the control of the weeds listed.
2. Any individual maize plants that do not contain the glyphosate tolerant gene will die when sprayed with glyphosate based products e.g. **HALEX GT**. The utmost care should be taken not to apply **HALEX GT** to non-glyphosate tolerant maize.
3. **HALEX GT** can be applied post-emergence of either the crop or/and the weeds.
4. Applications should be made very early in the growth stage of the weeds but before the 6 leaf stage of the weeds. In this case only one application of **HALEX GT** would be necessary to control an existing population. This would also minimize weed competition in very critical stages of the maize to optimise yield potential.
5. On glyphosate tolerant maize, **HALEX GT** can **only** be applied from soon after emergence up to the V8 leaf stage of the maize. This stage is reached when the first plants in the field have 8 leaves with closed collars around the main stem. (The actual number of leaves may be more).

6. Do not make broadcast applications if mechanical crop damage due to the passing of the sprayer will or has occurred or if hail damage has occurred.
7. If **HALEX GT** is applied as indicated, at least 28 -56 days control of the weeds as listed can be expected.
8. The clay content of the soil does not affect the dosage rate of **HALEX GT**.
9. When glyphosate tolerant maize is grown under no-till conditions, control all emerged weeds at the time of maize planting with a glyphosate or paraquat based herbicide program. After the glyphosate tolerant maize have emergence, **HALEX GT** can be applied post-emergence to control the weeds listed.
10. **HALEX GT** is specifically formulated for post-emergence in crop use and does not contain a maize safener. Therefore, **HALEX GT** is not recommended for early preplant or pre-emergence applications.
11. **HALEX GT** should always be used in a spray programme where pre-emergence residual herbicides e.g. DUAL GOLD, GARDOMIL GOLD, GESAPRIM SUPER, PRIMAGRAM GOLD, CALLISTO, CAMIX, LEXAR and CAMIX PLUS has been applied.
12. Refer to the TOUCHDOWN FORTE label for the relevant weeds controlled by similar glyphosate rates.
13. **HALEX GT** may not be applied by means of aerial application to glyphosate tolerant crops.
14. Take into account when planning to plant a glyphosate tolerant crop the control of the volunteer plants in the next season as **HALEX GT** does not control any volunteer glyphosate tolerant plants from the previous season.
15. When applying **HALEX GT** the application water should be treated with ammonium sulphate e.g. VELOCITY GLYFO (see 5.3.3) in a similar way as would be used when glyphosate is used. **HALEX GT** also requires a NIS wetter namely COMPLEMENT SUPER.

HALEX GT + Complement Super		
Application Rate	Botanical name	Common name
5 l/ha	<i>Amaranthus hybridus</i> <i>Bidens bipinnata</i> <i>Bidens pilosa</i> <i>Citrullus lanatus</i> <i>Cleome monophylla</i> <i>Commelina benghalensis</i> <i>Crotalaria sphaerocarpa</i> <i>Datura ferox</i> <i>Datura stramonium</i> <i>Digitaria sanguinalis</i> <i>Eleusine indica</i> <i>Galinsoga parviflora</i> <i>Hibiscus cannabinus</i> <i>Hibiscus trionum</i> <i>Ipomoea purpurea</i>	common pigweed Spanish blackjack Blackjack bitter apple Spindlepod Benghal wandering Jew mealie Crotalaria
	<i>Tagetes minuta</i> <i>Tribulus terrestris</i> <i>Xanthium strumarium</i>	large thorn apple thorn apple crab fingergrass goose grass gallant soldier kenaf bladder weed common morning glory khaki weed dubbeltjie Cocklebur
<b>Suppression only</b>		
	<i>Chloris virgata</i>	feathertop Chloris
	<i>Cyperus esculentus</i> <i>Urochloa panicoides</i>	yellow nutsedge herringbone grass

HALEX GT + Complement Super		
Application Rate	Botanical name	Common name
2 l/ha	<i>Amaranthus hybridus</i> <i>Cleome monophylla</i> <i>Crotalaria sphaerocarpa</i> <i>Datura ferox</i> <i>Datura stramonium</i> <i>Galinsoga parviflora</i> <i>Hibiscus trionum</i> <i>Tagetes minuta</i> <i>Xanthium strumarium</i>	common pigweed Spindlepod mealie Crotalaria large thorn apple thorn apple gallant soldier bladder weed khaki weed Cocklebur
3 l/ha	<i>Amaranthus hybridus</i> <i>Bidens bipinnata</i> <i>Bidens pilosa</i> <i>Citrullus lanatus</i> <i>Cleome monophylla</i> <i>Crotalaria sphaerocarpa</i> <i>Datura ferox</i> <i>Datura stramonium</i> <i>Galinsoga parviflora</i> <i>Hibiscus trionum</i> <i>Tagetes minuta</i> <i>Xanthium strumarium</i>	common pigweed Spanish blackjack Blackjack bitter apple Spindlepod mealie Crotalaria large thorn apple thorn apple gallant soldier bladder weed khaki weed Cocklebur
4 l/ha	<i>Amaranthus hybridus</i> <i>Bidens bipinnata</i> <i>Bidens pilosa</i> <i>Citrullus lanatus</i> <i>Cleome monophylla</i> <i>Commelina benghalensis</i> <i>Crotalaria sphaerocarpa</i> <i>Datura ferox</i> <i>Datura stramonium</i> <i>Digitaria sanguinalis</i> <i>Eleusine indica</i> <i>Galinsoga parviflora</i> <i>Hibiscus trionum</i> <i>Ipomoea purpurea</i>  <i>Tagetes minuta</i> <i>Tribulus terrestris</i> <i>Xanthium strumarium</i>	common pigweed Spanish blackjack Blackjack bitter apple Spindlepod Benghal wandering Jew mealie Crotalaria large thorn apple thorn apple crab fingergrass goose grass gallant soldier bladder weed common morning glory khaki weed dubbeltjie Cocklebur

CALLISTO®, CAMIX®, COMPLEMENT®, DUAL®, GARDOMIL®, GESAPRIM®, HALEX™ GT, KARATE®, LEXAR® and PRIMAGRAM® = Registered Trade Marks of a Syngenta Group Company  
**ROUNDUP READY®** is a registered Trade Marks of Monsanto Technology LLC.  
**AGRISURE®** = Registered Trade Marks of a Syngenta Group Company  
**VELOCITY GLYFO** = Registered Trade name of VILLA CROP CHEMICALS.

SYNGENTA AG, 2000. Copyright in this document is reserved. All unauthorised reproduction is forbidden.

SA Reg.2014-04-30