

WARNINGS

Hazard Statements:

Causes skin irritation. Causes serious eye irritation. Suspected of damaging fertility or the unborn child. Very toxic to aquatic life with long lasting effects.

WITHHOLDING PERIOD:

ALLOW THE FOLLOWING MINIMUM NUMBER OF DAYS BETWEEN APPLICATION AND HARVEST:

CROP	Days
Clearfield® Sunflower	70

IMPORTANT: The recommended withholding period between the last application and harvest meets local residue requirements, but may not meet export requirements.

- Keep out of reach of children, animals and uninformed persons.
- To avoid injury to other crops, spray equipment used for **ROLLING-THUNDER 48 SL** applications must be drained after use and thoroughly cleaned with water before being used to apply other products to crops.
- Apply only to certified **Clearfield®** Sunflower varieties as registered by the relevant seed companies.
- **Re-entry Interval:** Do not enter the treated area until the spray deposit has dried unless wearing protective clothing.

DISCLAIMER:

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

Precautionary Statements

General: If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read carefully and follow all instructions.

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash hands, forearms and face thoroughly after handling. Avoid release to the environment. Wear protective clothing, eye protection, face protection.

Response: IF ON SKIN: Wash with plenty of soap and water. If exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Collect spillage.

Storage: Store locked up.

Disposal: Dispose of contents and container to an approved waste disposal plant.

- Avoid spray drift onto other crops, grazing, rivers, dams and any area not under treatment.
- Thoroughly wash and rinse spray equipment after use and dispose of wash water where it will not contaminate crops, grazing, rivers and dams.
- Do not apply where the roots of any non-target plants may absorb the product.
- **TRIPLE RINSE the empty container as follows:** Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.
- Destroy the empty container by perforation, flattening and burying at an appropriate landfill and do not use it for any other purpose.
- Prevent contamination of food, feedstuffs, drinking water and eating utensils.

ROLLING-THUNDER 48 SL

Reg No. 11708 Act/Wet Nr. / No. 36 of / van 1947

HERBICIDE



**READ THE LABEL AND ATTACHED PACKAGED LEAFLET BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

HRAC HERBICIDE GROUP CODE:

2

HRAC ONKRUIDDODER GROEPKODE:

A water soluble post-emergent herbicide for the control of annual broadleaf- and grass weeds in Clearfield® Sunflowers.

'n Wateroplosbare na-opkoms onkruidodder vir die beheer van seker eenjarige breëblaar -en grasonkruid in Clearfield® Sonneblom.

ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL:

Imazamox (Imidazolinone).....33 g/l..... Imasamoks (imidasolinoo)
Imazapyr (imidazolinone).....15 g/l Imasapir (imidasolinoo)



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Batch No:

D.O.M:

D.O.E:

Net Contents:

See reverse of drum for details.

FOR FULL PARTICULARS SEE ATTACHED PAMPHLET.

VIR VOLLEDIGE BESONDERHEDE KYK AANGEHEGTE ETIKET.

UN No. / VR Nr: 3082



REGISTRATION HOLDER/ REGISTRASIEHOUER

Farm Ag International (Pty) Ltd

Reg. Nr: Reg. No. 2005/011761/07

61 Marshall Drive, Old Mill Industrial Park,

Mount Edgecombe, South Africa, 4300

Tel: 031 003 3486

In case of poisoning, call the following number:
Poison Information Helpline (24 hrs) 0861 555 777
Disaster Management Number: Spill Tech 086 100 0366



Scan for GHS
and label details

BARCODE

101212

RELEVANT SUBSTANCES

NAME	PRODUCT IDENTIFIER
Imazamox TC	CAS-No.: 114311-32-9
Imazapyr TC	CAS-No.: 81334-34-1
Ammonium hydroxide	CAS-No.: 1336-21-6

MODE OF ACTION

Imazamox: Selective, systemic herbicide, absorbed by both foliage and roots, translocated acropetally and basipetally in the phloem and xylem to growing points. Residual. Plants wilt and turn brown. Selectivity in soybeans and peanuts is due to rapid detoxification via demethylation of the methoxy group and glycosylation.

Imazapyr: Systemic herbicide, absorbed by foliage and roots, translocated acropetally and basipetally in the phloem and xylem to meristematic regions, where it accumulates. Residual.

RESISTANCE WARNING

ROLLING-THUNDER 48 SL is a Group Code 2 herbicide that belongs to the Imidazolinone group of herbicides. The product's mode of action is via the inhibition of acetolactate-synthase (ALS). In any weed population there are certain weed biotypes that are naturally resistant to herbicides with specific modes of action. The repeated and possibly uninterrupted use of herbicides with the same mode of action may cause these naturally occurring biotypes to become dominant in numbers over time. These resistant weeds are not controlled and the result is poor weed control even although the directions for use have been carefully adhered to. This is also true for other ALS-inhibiting herbicides. Therefore, Farm-Ag International (Pty) Ltd cannot be held responsible for poor control of such resistant weeds, or any losses that may result from the use of **ROLLING-THUNDER 48 SL** where resistant weeds are present. The following actions are recommended to delay the selection for resistant weeds:

- It is important to be familiar with- and understand the modes of action of the different herbicides available.
- Apply **ROLLING-THUNDER 48 SL** only once per season.
- If any further herbicide applications are required during the same season on the same land, use herbicides with a different mode of action.

FOR SPECIFIC INFORMATION ON RESISTANCE MANAGEMENT CONTACT THE REGISTRATION HOLDER.

USE RESTRICTIONS

- **ROLLING-THUNDER 48 SL** can **only** be used on **Clearfield®** Sunflower hybrids. Non **Clearfield®** hybrids of Sunflower will not survive if treated with **ROLLING-THUNDER 48 SL**. (For information on where to obtain **ROLLING-THUNDER 48 SL** Sunflower, please contact your agent or the registration holder.
- Avoid the application of **ROLLING-THUNDER 48 SL** to plants growing in soils with a pH (KCl) of below 4,5 or above 7,2.
- Avoid overlaps when spraying.
- DO NOT use any additional wetting agents, spreaders or other adjuvants as **ROLLING-THUNDER 48 SL** has already been formulated with suitable amounts of appropriate surfactants. The only exception is the recommended addition of a flowable (50%) high quality, registered ammonium sulphate (see under **General information** below).
- Do not apply when the wind velocity exceeds 15 km/h, when temperature inversion conditions exist or when the spray mist may drift onto sensitive crops. Ideally a buffer zone should be established between the area to be sprayed and sensitive crops.
- Sensitive crops include, but are not limited to, vegetable crops, cereals and other grain crops and sunflower varieties other than **Clearfield®** Sunflower.
- Do not apply to any crop or situation not mentioned in this label.
- Do not apply this product in combination or tank mixed with any other product or agricultural remedy which is not specifically listed on this label.
- In order to avoid possible damage to follow-up crops, the following waiting periods should be taken into consideration after the application of **ROLLING-THUNDER 48 SL**. Nevertheless, a test planting is always recommended as an extra precaution.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED

CROP	WAITING PERIOD
a) Clearfield® Sunflower.	None
b) Wheat.	4 months
c) Maize [All maize producing areas (including irrigation)].	10 months
d) All other crops.	20 months

NOTE: The abovementioned waiting periods will only be valid if the correct dosage rate of **ROLLING-THUNDER 48 SL** has been applied and an average or above average rainfall (with a minimum of 350 mm) between application and planting of the following crop has been recorded. The abovementioned waiting periods should be extended by an extra 12 months if the minimum rainfall indicated above has not been recorded for the season of application. Consult the supplier in the event of any uncertainty.

General information:

- Note that **Clearfield®** is an internationally Registered Trademark belonging to BASF and appears in a registered logo including the words "**Clearfield® Production System**".
- **Clearfield®** Sunflower plants are **not Genetically Modified Organisms**.
- The mode of action of **ROLLING-THUNDER 48 SL** involves uptake by the plant foliage followed by translocation to the growing points (meristems). After the application of **ROLLING-THUNDER 48 SL** susceptible weeds may show yellowing and weed growth will cease. Susceptible weeds stop growing and either die or do not compete significantly with the crop for light and nutrients.
- **ROLLING-THUNDER 48 SL** must only be applied to **Clearfield®** Sunflower after the 2-leaf stage of the crop (ideally at four leaves). However, do not apply when the leaf canopy of the crop is too large as this will prevent the herbicide from reaching the targeted weeds.
- Application should be completed by no later than 32 days after planting.
- The weeds must be between the 2- and 6-leaf stage at the time of spraying and must be actively growing. Do not apply to weeds that are under any form of stress (e.g. drought, waterlogged or nutrient imbalances) during application, as this can limit the uptake and translocation of the product, resulting in poor weed control.
- Adequate soil moisture is important for optimum **ROLLING-THUNDER 48 SL** activity.
- In regions where water quality is known to be poor, a registered, high quality flowable (50 %) ammonium sulphate can be used to ameliorate the water before mixing the recommended dosage of **ROLLING-THUNDER 48 SL**.
- Ensure thorough coverage and wetting of the weeds.
- **IMPORTANT:** Only one application of **ROLLING-THUNDER 48 SL** may be made per growing season. In situations where **Clearfield®** Sunflowers are replanted for any reason and where **ROLLING-THUNDER 48 SL** was applied to the first planting, **DO NOT** re-apply **ROLLING-THUNDER 48 SL** to the second planting. A shallow cultivation of the soil to no deeper than 5 cm is suggested, so that the option of a pre-emergent grass herbicide remains available at re-planting (refer to the appropriate labels for full recommendations).
- A transient, non-lethal yellowing of the crop (sometimes referred to as "yellow flash"), or shortening of the internodes, may occur 5 - 8 days following a **ROLLING-THUNDER 48 SL** treatment. However, tests have demonstrated that no adverse effects on yield will occur. Note that these effects can be more pronounced if a registered high quality flowable (50 %) ammonium sulphate has been included in the tank mixture and if crops are experiencing stressful environmental conditions. It is essential therefore to ensure that the best agronomic practices are followed including soil preparation, adequate fertilization and disease control during the seedling phase.

Compatibility:

ROLLING-THUNDER 48 SL is compatible with a registered high quality flowable (50 %) ammonium sulphate. Do not mix **ROLLING-THUNDER 48 SL** with any organophosphate or carbamate insecticides.

Mixing instructions:

Three-quarter fill the spray tank with clean water. Make a separate premix by carefully measuring out the required amount of **ROLLING-THUNDER 48 SL** and mix with at least 10ℓ water. Then add this premix to the water in the tank while agitating vigorously. Note: If water amelioration is necessary, add a registered high quality flowable (50 %) ammonium sulphate to the spray water first and allow for thorough mixing before adding the **ROLLING-THUNDER 48 SL**. Follow this by adding the mixing partner to the tank. **Maintain constant agitation.** Should tank mixtures with other herbicides be made, follow the respective manufacturer's label recommendations.

If any other product is to be mixed with **ROLLING-THUNDER 48 SL** then pre-mix the required volume of product in a similar fashion. Agitate the water in the spray tank.

Fill the spray tank to the desired volume with water while maintaining agitation to ensure thorough stirring of the spray mixture before spraying commences. Maintain agitation while spraying. The prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight. Spray equipment must be thoroughly flushed out at the end of the spraying operation.

APPLICATION METHODS

All spray applications must be made with suitable equipment that is in good working order and correctly calibrated to give the desired coverage for that particular method of application. Ensure uniform coverage.

RECOMMENDATIONS

CROP	DOSAGE ℓ/ha	DIRECTIONS FOR APPLICATION
Clearfield® Sunflower	1 ℓ	ROLLING-THUNDER 48 SL SHOULD ALWAYS BE PART OF A PROGRAMME APPLICATION. Always start the programme by using a pre-emergent grass herbicide, namely Buccaneer 960 EC. Post-emergent application: ROLLING-THUNDER 48 SL must be applied at the 2-6 leaf stage of the weeds. Any grass weeds must be treated before tillering starts. The sunflower seedlings must be between 2- and 6 – leaf stages. It is therefore important to apply when most weeds have emerged together but due consideration must be given to the growth stage of the crop. Do not delay application beyond this time as reduced efficacy can be expected for older weeds. APPLICATION SHOULD BE COMPLETED BY NO LATER THAN 32 DAYS AFTER PLANTING. Ground application: Apply ROLLING-THUNDER 48 SL in 150-250 ℓ water/ha. Aerial application is not recommended.

Table 1

WEEDS CONTROLLED BY ROLLING-THUNDER 48 SL

SCIENTIFIC NAME	COMMON NAME
<i>Amaranthus hybridus</i>	Green pigweed
<i>Chenopodium album</i>	Common lambsquarters
<i>Cleome monophylla</i>	Single-leaved cleome
<i>Datura ferox</i>	Fierce thorn apple
<i>Tagetes minuta</i>	Wild marigold
WEEDS SUPPRESSED BY ROLLING-THUNDER 48 SL	
SCIENTIFIC NAME	COMMON NAME
<i>Commelina benghalensis</i>	Tropical spiderwort

Table 2

WEEDS CONTROLLED BY ROLLING-THUNDER 48 SL WHEN APPLIED FOLLOWING THE USE OF A PRE-EMERGENT GRASS CONTROL PRODUCT NAMELY BUCCANEER 960 EC.

GRASSES		BROAD LEAVES	
SCIENTIFIC NAME	COMMON NAME	SCIENTIFIC NAME	COMMON NAME
<i>Digitaria sanguinalis</i>	Crab finger grass	<i>Amaranthus hybridus</i>	Common pigweed
<i>Dinebra retrifexa</i>	Cat's tail grass	<i>Amaranthus viridis</i>	Slender Amaranthus
<i>Dactyloctenium aegyptium</i>	Crow foot grass	<i>Bidens pilosa</i>	Hairy beggarticks
<i>Eleusine indica ss africanum</i>	Goose grass	<i>Chenopodium album</i>	White goosefoot
		<i>Chenopodium carinatum</i>	Green goosefoot
		<i>Chenopodium pumilio</i>	Clammy goosefoot
		<i>Commelina benghalensis</i>	Wandering Jew
		<i>Convolvulus sagittatus</i>	Bind weed
		<i>Cucumis myriocarpus</i>	Striped wild cucumber
		<i>Datura ferox</i>	Large thorn apple
		<i>Datura stramonium</i>	Common thorn apple

GRASSES		BROAD LEAVES	
SCIENTIFIC NAME	COMMON NAME	SCIENTIFIC NAME	COMMON NAME
		<i>Euphorbia helioscopia</i>	Umbrella milkweed
		<i>Euphorbia heterophylla</i>	Painted euphorbia
		<i>Galinsoga parviflora</i>	Small-flower galinsoga
		<i>Hibiscus trionum</i>	Bladder hibiscus
		<i>Portulaca oleracea</i>	Purslane
		<i>Richardia brasiliensis</i>	Mexican Richardia
		<i>Sonchus oleraceus</i>	Annual sowthistle
		<i>Tagetes minuta</i>	Tall khaki weed
		<i>Tribulus terrestris</i>	Devil thorn

Also refer to the spectrum of weeds controlled by the pre-emergent grass herbicide mentioned above. Weed species such as *Bidens* spp., *Datura* spp., *Tagetes minuta*, *Xanthium strumarium* and some others that germinate erratically, even during the latter part of the season, may not be effectively controlled up to harvest.

Table 3
SUPPRESSION OF BETWEEN 60 – 90 % OF THE FOLLOWING WEEDS WILL BE ACHIEVED WITH ROLLING-THUNDER 48 SL FOLLOWING THE USE OF THE REGISTERED PRE-EMERGENT GRASS HERBICIDE NAMELY BUCCANEER 960 EC.

GRASSES		BROAD LEAVES	
SCIENTIFIC NAME	COMMON NAME	SCIENTIFIC NAME	COMMON NAME
<i>Panicum schinzii</i>	Sweet buffalo grass	<i>Acanthospermum hispidum</i>	Upright starbur
		<i>Bidens pilosa</i>	Blackjack
		<i>Bidens formosa</i>	Cosmos
		<i>Crotalaria spaerocarpa</i>	Wild lucerne
		<i>Ipomoea purpurea</i>	Morning glory
		<i>Schkurhia pinnata</i>	Dwarf marigold
		<i>Xanthium strumarium</i>	Large cockle bur

ROLLING-THUNDER 48 SL treatments control or suppress the above-mentioned weed species as listed. Other weed species that were not present during the development trials of this product may also be controlled or suppressed to a certain degree. The registration holder accepts no responsibility for unlisted weeds.

ACKNOWLEDGEMENT OF TRADEMARKS

Clearfield® is a registered trade mark of BASF.

Buccaneer 960 EC (L7178) is a registered trade name of Farm-Ag International (Pty) Ltd



WAARSKUWINGS:

Gevaarstellings:

Veroorsaak velirritasie. Veroorsaak ernstige oogirritasie. Word daarvan verdink dat dit vrugbaarheid of die ongebore kind kan beskadig. Baie giftig vir waterlewe met langdurige effekte.

ONTHOUDINGSTYDPERK:

LAAT DIE VOLGENDE MINIMUM AANTAL DAE TOE TUSSEN TOEDIENING EN OES:

GEWAS	DAE
Clearfield® Sunflower	70

BELANGRIK:

Die aanbevole onthoudingsperiode tussen die laaste toediening en oes voldoen aan plaaslike residuvereistes, maar voldoen dalk nie aan uitvoervereistes nie.

- Hou buite bereik van kinders, diere en oningeligte persone.
- Om beserings aan ander gewasse te voorkom, moet spuittoerusting wat vir **ROLLING-THUNDER 48 SL** toedienings gebruik word gedreineer word na gebruik en deeglik met water skoonmaak word voordat dit gebruik word om ander produkte op gewasse toe te dien.
- Dien slegs toe op gesertifiseerde **Clearfield®** Sonneblomvariëteite soos geregistreer deur die betrokke saadmaatskappye.
- **Herbetredingsinterval:** Moet nie die behandelde area betree voordat die spuitneerslag droog is nie, tensy beskermende klere gedra word.

VRYSWARING:

Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie omdat die werking en effek daarvan beïnvloed kan word deur faktore soos abnormale grond-, klimaat- en bergingstoestande, kwaliteit van verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui word nie en die voorkoms van weerstand van onkruid teen die betrokke middel asook deur die metode, tyd en akkuraatheid van toediening. Die registrasiehouer aanvaar verder nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of skade aan mens of dier of vir gebrekkige prestasie van die betrokke middel as gevolg van die versuim van die gebruiker om die etiketinstruksies te volg of die voorkoms van toestande wat kon nie in terme van die registrasie voorsien gewees het nie. Raadpleeg die verskaffer in die geval van enige onsekerheid.

VOORSORGMAATREËLS:

Voorsorgstellings

Algemeen: Indien mediese advies benodig word, hou produkhouer of etiket byderhand. Hou buite bereik van kinders. Lees noukeurig en volg alle instruksies.

Voorkoming: Kry spesiale instruksies voor gebruik. Moet nie hanteer voordat alle veiligheidsmaatreëls gelees en verstaan is nie. Was hande, voorarms en gesig deeglik na hantering. Vermyn vrylating na die omgewing. Dra beskermende klere, oogbeskerming, gesigbeskerming.

Reaksie: INDIEN OP DIE VEL: Was met baie seep en water. Indien blootgestel of beklemmerd: Kry mediese advies/aandag. Indien velirritasie voorkom: Kry mediese advies/aandag. Trek besoedelde klere uit en was dit voor hergebruik. Versamel gemors.

Berging: Stoor toegesluit.

Wegdoening: Gooi inhoud en houer weg na 'n goedgekeurde afvalverwyderingsaanleg.

- Vermyn wegdrywing van spuitnewel na ander gewasse, weiding, riviere, damme en enige gebied wat nie onder behandeling is nie.
- Was en spoel spuittoerusting deeglik uit na gebruik en gooi spoelwater weg waar dit nie gewasse, weiding, riviere en damme sal besoedel nie.
- Moet nie toedien waar die wortels van enige nie-teiken plante die produk kan absorbeer nie.
- **SPOEL DIE LEË HOER DRIEKEER UIT soos volg:** Keer die leë houer om oor die spuit- of mengtenk en dreineer vir ten minste 30 sekondes nadat die vloeitot drup verlangsamer het. Spoel die leë houer daarna drie keer agtereenvolgens uit met een kwart van die houervolume vars water en gooi die spoelwater in die spuit- of mengtenk. Prik die drievoudig uitgespoelde houer deur en gooi weg via 'n goedgekeurde versamelaar of herwinner (www.croplife.co.za). Moet nie die houer begrawe, verbrand of skenk aan enige ander partye wat dit as 'n houer vir kos of drank kan gebruik nie.
- Vernietig die leë houer deur gate daarin te maak, plat te slaan en by 'n toepaslike stortingsterrein te begrawe en moet dit vir geen ander doel gebruik nie.
- Voorkom besoedeling van voedsel, voer, drinkwater en eetgerei.

RELEVANTE STOWWE:

NAAM	PRODUKIDENTIFISEERDER
Imasamoks TS	CAS-Nr.: 114311-32-9
Imasapir TS	CAS-Nr.: 81334-34-1
Ammoniumhidroksied	CAS-Nr.: 1336-21-6

WYSE VAN AKSIE:

Imasamoks: Selektiewe, sistemiese onkruidodder, geabsorbeer deur beide blare en wortels, verplaas akropetaal en basipetaal in die floëem en xileem na groeipunte. Oorblywende. Plante verwelk en word bruin. Selektiwiteit in sojabone en grondbootjies is te danke aan vinnige ontgifting via demetielering van die metoksigroep en glikosilering.

Imasapir: Sistemiese onkruidodder, geabsorbeer deur blare en wortels, het akropetaal en basipetaal in die floëem en xileem getranslokeer na meristematiese streke, waar dit ophoop. Oorblywende.

WEERSTANDSWAARSKUWING:

ROLLING-THUNDER 48 SL is 'n Groepkode 2 onkruidodder wat tot die Imidazolinone groep onkruidodders behoort. Die produk se werkingswyse is deur die inhibisie van asetolaktata-sintetase (ALS). In enige onkruidpopulasie is daar sekere onkruidbiotipes wat natuurlik bestand is teen onkruidodders met spesifieke werkingswyses. Die herhaalde en moontlik ononderbroke gebruik van onkruidodders met dieselfde werkingswyse kan veroorsaak dat hierdie natuurlik voorkomende biotipes mettertyd dominant in getalle word. Hierdie weerstandbiedende onkruid word nie beheer nie en die resultaat is swak onkruidbeheer alhoewel die gebruiksaanwysings noukeurig nagekom is. Dit geld ook vir ander ALS-inhiberende onkruidodders. Daarom kan FarmAg International (Edms) Bpk nie verantwoordelik gehou word vir swak beheer van sulke weerstandbiedende onkruidde, of enige verliese wat mag voortspruit uit die gebruik van **ROLLING-THUNDER 48 SL** waar weerstandbiedende onkruidde teenwoordig is nie.

Die volgende aksies word aanbeveel om die seleksie vir weerstandbiedende onkruidde te vertraag:

- Dit is belangrik om vertrou te wees met- en die werkingswyses van die verskillende onkruidodders wat beskikbaar is, te verstaan.
- Dien **ROLLING-THUNDER 48 SL** slegs een keer per seisoen toe.
- Indien enige verdere onkruidodder/toedienings gedurende dieselfde seisoen op dieselfde land benodig word, gebruik onkruidodders met 'n ander manier van werking.

KONTAK DIE REGISTRASIEHOUER VIR SPESIEKE INLIGTING OOR WEERSTANDBESTUUR.**GEBRUIKSBEPERKINGS:**

- **ROLLING-THUNDER 48 SL** kan slegs op **Clearfield®** Sonneblombasters gebruik word. Nie- **Clearfield®** basters van Sonneblom sal nie oorleef as dit met **ROLLING-THUNDER 48 SL** behandel word nie. (Vir inligting oor waar om **ROLLING-THUNDER 48 SL** Sonneblom te bekom, kontak asseblief jou agent of die registrasiehouer.
- Vermy die toediening van **ROLLING-THUNDER 48 SL** op plante wat groei in gronde met 'n pH (KCl) van onder 4,5 of bo 7,2.
- Vermy oorvleuelings tydens bespuiting.
- **MOET NIE** enige bykomende benattingsmiddels, strooimiddels of ander byvoegings gebruik nie, aangesien **ROLLING-THUNDER 48 SL** reeds met geskikte hoeveelhede toepaslike oppervlakaktiewe geformuleer is. Die enigste uitsondering is die aanbevole byvoeging van 'n vloeibare (50%) hoë kwaliteit, geregistreerde ammoniumsulfaat (sien onder Algemene inligting hieronder).
- Moet nie toedien wanneer die windsnelheid 15 km/h oorskry, wanneer temperatuur inversie toestande bestaan of wanneer die spuitnewel na sensitiewe gewasse kan dryf nie. Ideaal gesproke moet 'n buffersone tussen die gebied wat bespuit gaan word en sensitiewe gewasse gevestig word.
- Sensitiewe gewasse sluit in, maar is beperk nie tot, groentegewasse, graan en ander graangewasse en sonneblomvariëteite anders as **Clearfield®** Sonneblom.
- Moet nie toedien op enige gewas of situasie wat nie in hierdie etiket genoem word nie.
- Moet nie hierdie produk in kombinasie of tenkgemeng toedien met enige ander produk of landboumiddel wat nie spesifiek op hierdie etiket gelys is nie.
- Om moontlike skade aan opvolggewasse te vermy, moet die volgende wagperiodes na toediening van **ROLLING-THUNDER 48 SL** in ag geneem word. 'n Toetsplanting word nietemin altyd aanbeveel as 'n ekstra voorsorgmaatreël.

GEBRUIKSAANWYSINGS:

GEbruik slegs soos aangedui

GEWAS	WAGPERIODE
a) Clearfield ® Sonneblom.	Geen
b) Koring.	4 Maande
c) Mielies [Alle mielieproduserende gebiede (insluitend besproeiing)].	10 Maande
d) Alle ander gewasse.	20 Maande

LET WEL:

Bogenoemde wagperiodes sal slegs geldig wees indien die korrekte dosis **ROLLING-THUNDER 48 SL** toegedien is en 'n gemiddelde of bogemiddelde reënval (met 'n minimum van 350 mm) tussen toediening en plant van die volgende gewas aangeteken is. Bogenoemde wagperiodes moet met 'n ekstra 12 maande verleng word indien die minimum reënval soos hierbo aangedui nie vir die seisoen van toediening aangeteken is nie. Raadpleeg die verskaffer in die geval van enige onsekerheid.

Algemene inligting:

- Let daarop dat **Clearfield**® 'n internasionaal geregistreerde handelsmerk is wat aan BASF behoort en in 'n geregistreerde logo verskyn, insluitend die woorde “**Clearfield**® **Produksiestelsel**”.
- **Clearfield**® Sonneblomplante is **nie geneties gemodifiseerde organismes nie**.
- Die werking van **ROLLING-THUNDER 48 SL** behels opname deur die plantbare gevolg deur translokasie na die groeipunte (meristeme). Na toediening van **ROLLING-THUNDER 48 SL** kan vatbare onkruidse vergeling toon en onkruidgroei sal ophou. Vatbare onkruidse hou op groei en vrek of of kompeteer nie noemenswaardig met die gewas vir lig en voedingstowwe nie.
- **ROLLING-THUNDER 48 SL** moet eers na die 2-blaarstadium van die gewas op **Clearfield**® Sonneblom toegedien word (verkieslik op vier blare). Moet egter nie toedien wanneer die blaarbelaar van die gewas te groot is nie, aangesien dit sal verhoed dat die onkruid dodere die geteikende onkruidse bereik.
- Toediening moet nie later nie as 32 dae na plant afgehandel word.
- Die onkruidse moet tussen die 2- en 6-blaarstadiums wees ten tye van bespuiting en moet aktief groeiend wees. Moet nie toedien op onkruidse wat onder enige vorm van stres verkeer (bv. droogte, versuipde of voedingstofwanbalanse) tydens toediening nie, aangesien dit die opname en translokasie van die produk kan beperk, wat lei tot swak onkruidbeheer.
- Voldoende grondvog is belangrik vir optimale **ROLLING-THUNDER 48 SL** aktiwiteit.
- In streke waar dit bekend is dat waterkwaliteit swak is, kan 'n geregistreerde, hoë kwaliteit vloeibare (50 %) ammoniumsulfaat gebruik word om die water te verbeter voordat die aanbevole dosis **ROLLING-THUNDER 48 SL** gemeng word.
- Verseker deeglike bedekking en benutting van die onkruid.
- **BELANGRIK:** Slegs een toediening van **ROLLING-THUNDER 48 SL** mag per groeiseisoen toegedien word. In situasies waar **Clearfield**® Sonneblomme om enige rede herplant word en waar **ROLLING-THUNDER 48 SL** op die eerste aanplanting toegedien is, **MOET NIE ROLLING-THUNDER 48 SL** weer op die tweede aanplanting toedien nie! 'n Vlak bewerking van die grond tot nie dieper as 5 cm word voorgestel, sodat die opsie van 'n vooropkoms-grasonkruid dodere beskikbaar bly by herplanting (verwys na die toepaslike etikette vir volledige aanbevelings).
- 'n Verbygaande, nie-dodelike vergeling van die gewas (soms na verwys as “geel flits”), of verkorting van die internodes, kan 5 - 8 dae na 'n **ROLLING-THUNDER 48 SL** behandeling voorkom. Toetse het egter getoon dat geen nadelige uitwerking op opbrengs sal voorkom nie. Let daarop dat hierdie effekte meer uitgesproke kan wees as 'n geregistreerde hoë kwaliteit vloeibare (50 %) ammoniumsulfaat in die tenkmengsel ingesluit is en as gewasse stresvolle omgewingstoestande ervaar. Dit is dus noodsaaklik om te verseker dat die beste agnomiese praktyke gevolg word, insluitend grondvoorbereiding, voldoende bemesting en siektebeheer gedurende die saailingfase.

Verenigbaarheid:

ROLLING-THUNDER 48 SL is verenigbaar met 'n geregistreerde hoë kwaliteit vloeibare (50 %) ammoniumsulfaat. Moet nie **ROLLING-THUNDER 48 SL** met enige organofosfaat of karbamaat insekdoders meng nie.

Menginstruksies:

Vul die spuitnek driekwart met skoon water. Maak 'n aparte voormengsel deur die benodigde hoeveelheid **ROLLING-THUNDER 48 SL** versigtig uit te meet en meng met ten minste 10ℓ water. Voeg dan hierdie voormengsel by die water in die tenk terwyl dit kragtig geroer word.

Let wel: Indien waterverbetering nodig is, voeg eers 'n geregistreerde hoë kwaliteit vloeibare (50 %) ammoniumsulfaat by die spuitwater en maak voorsiening vir deeglike vermenging voordat die **ROLLING-THUNDER 48 SL** bygevoeg word. Volg dit deur die mengmaat by die tenk te voeg. Handhaaf konstante roering. Indien tenkmengsels met ander onkruid dodere gemaak word, volg die onderskeie vervaardiger se etiketaanbevelings.

Indien enige ander produk met **ROLLING-THUNDER 48 SL** gemeng moet word, meng dan vooraf die verlangde volume produk op 'n soortgelyke wyse. Roer die water in die spuitnek.

Vul die spuittenk tot die verlangde volume met water terwyl geroer word om deeglike roer van die spuitmengsel te verseker voordat bespuiting begin. Handhaaf roering tydens bespuiting. Die voorbereide spuitmengsel moet nie vir enige tyd in die spuittenk gelaat word nie, bv. oormag. Spuittoerusting moet aan die einde van die bespuiting deeglik uitgespoel word.

TOEDIENINGSMETODES:

Alle spuittoedienings moet gemaak word met geskikte toerusting wat in goeie werkende toestand is en korrek gekalibreer is om die verlangde bedekking vir daardie spesifieke metode van toediening te gee. Verseker eenvormige dekking.

AANBEVELINGS:

GEWAS	DOSIS ℓ/ha	AANWYSINGS VIR TOEDIENINGS
Clearfield® Sunflower	1 ℓ	ROLLING-THUNDER 48 SL MOET ALTYD DEEL WEES VAN 'N PROGRAM TOEDIENING. Begin altyd die program deur 'n vooropkoms-grasonkruidodder te gebruik, naamlik Buccaneer 960 EC . Na-opkoms toediening: ROLLING-THUNDER 48 SL moet op die 2-6 blaarstadium van die onkruid toegegee word. Enige grasonkruid moet behandel word voordat bewerking begin. Die sonneblomsaailinge moet tussen 2- en 6-blaarstadiums wees. Dit is dus belangrik om toe te dien wanneer die meeste onkruid saam opgekom het, maar behoorlike oorweging moet gegee word aan die groeistadium van die gewas. Moenie toediening na hierdie tyd uitstel nie aangesien verminderde doeltreffendheid vir ower onkruid verwag kan word. AANSOEK MOET TE LATER AS 32 DAE NA PLANT VOLTOOI WORD. Grondtoediening: Dien ROLLING-THUNDER 48 SL toe in 150-250 ℓ water/ha. Lugtoediening word nie aanbeveel nie.

Tabel 1

ONKRUIDE BEHEER DEUR ROLLING-THUNDER 48 SL

WETENSKAPLIKE NAAM	ALGEMENE NAAM
<i>Amaranthus hybridus</i>	Gewone misbredie
<i>Chenopodium album</i>	Withondebossie
<i>Cleome monophylla</i>	Rusperbossie
<i>Datura ferox</i>	Grootstinkblaar
<i>Tagetes minuta</i>	Kakiebos
ONKRUID ONDERDRUK DEUR ROLLING-THUNDER 48 SL	
WETENSKAPLIKE NAAM	ALGEMENE NAAM
<i>Commelina benghalensis</i>	Bengalse wandelende jood

Tabel 2

ONKRUIDE WORD BEHEER DEUR ROLLING-THUNDER 48 SL WANNEER AANGEDIEN NA DIE GEBRUIK VAN 'N VOOROPKOMS GRASBEHEERPRODUK NAAMLIK BUCCANEER 960 EC.

GRASSE		BREË BLARE	
WETENSKAPLIKE NAAM	ALGEMENE NAAM	WETENSKAPLIKE NAAM	ALGEMENE NAAM
<i>Digitaria sanguinalis</i>	Kruisvingergras	<i>Amaranthus hybridus</i>	Gewone misbredie
<i>Dinebra retroflexa</i>	Katstert gras	<i>Amaranthus viridis</i>	Skraal misbredie
<i>Dactyloctenium aegyptium</i>	Hoenderspoor	<i>Bidens pilosa</i>	Knapsekêrel
<i>Eleusine indica ss africanum</i>	Jongosgras	<i>Chenopodium album</i>	Withondebossie

GRASSE		BREE BLARE	
WETENSKAPLIKE NAAM	ALGEMENE NAAM	WETENSKAPLIKE NAAM	ALGEMENE NAAM
		<i>Chenopodium carinatum</i>	Groen hondebossie
		<i>Chenopodium pumilio</i>	Klamerige gansvoet
		<i>Commelina benghalensis</i>	Bengaalse wandelende jood
		<i>Convolvulus sagittatus</i>	Bobbejaantou
		<i>Cucumis myriocarpus</i>	Wilde kornkommer
		<i>Datura ferox</i>	Grootstinkblaar
		<i>Datura stramonium</i>	Stinkblaar
		<i>Euphorbia helioscopia</i>	Sambreelmelkkruid
		<i>Euphorbia heterophylla</i>	Wildepoinsetia
		<i>Galinsoga parviflora</i>	Knopkruid
		<i>Hibiscus trionum</i>	Terblansbossie
		<i>Portulaca oleracea</i>	Porselein
		<i>Richardia brasiliensis</i>	Tropiese Richardia
		<i>Sonchus oleraceus</i>	Gewone sydisel
		<i>Tagetes minuta</i>	Kakiebos
		<i>Tribulus terrestris</i>	Gewone dubbeltjie

Verwys ook na die spektrum van onkruid wat beheer word deur die vooropkoms grasonkruidodder hierbo genoem. Onkruidspesies soos *Bidens* spp., *Datura* spp., *Tagetes minuta*, *Xanthium strumarium* en sommige ander wat wisselvallig ontkiem, selfs gedurende die laaste deel van die seisoen, sal moontlik nie effektief beheer word tot oestyd nie.

Tabel 3

ONDERDRUKKING VAN TUSSEN 60 – 90 % VAN DIE VOLGENDE ONKRUIDE SAL BEREIK WORD MET ROLLING-THUNDER 48 SL NA DIE GEBRUIK VAN DIE GEREGISTREERDE VOOROPKOMSTE GRAS-ONKRUIDDODDER NAAMLIK BUCCANEER 960 EC.

GRASSE		BREE BLARE	
WETENSKAPLIKE NAAM	ALGEMENE NAAM	WETENSKAPLIKE NAAM	ALGEMENE NAAM
<i>Panicum schinzii</i>	Sweet buffalo grass	<i>Acanthospermum hispidum</i>	Upright starbur
		<i>Bidens pilosa</i>	Blackjack
		<i>Bidens formosa</i>	Cosmos
		<i>Crotalaria spaerocarpa</i>	Wild lucerne
		<i>Ipomoea purpurea</i>	Morning glory
		<i>Schkurhia pinnata</i>	Dwarf marigold
		<i>Xanthium strumarium</i>	Large cockle bur

ROLLING-THUNDER 48 SL behandelings beheer of onderdruk die bogenoemde onkruidspesies soos gelys. Ander onkruidspesies wat nie tydens die ontwikkelingsproewe van hierdie produk teenwoordig was nie, kan ook tot 'n sekere mate beheer of onderdruk word. Die registrasiehouer aanvaar geen verantwoordelikheid vir ongelyse onkruid nie.

ERKENNING VAN HANDELSMERKE

Clearfield® is 'n geregistreerde handelsmerk van BASF.

Buccaneer 960 EC (L7178) is 'n geregistreerde handelsnaam van Farm Ag International (Pty) Ltd.



ROLLING-THUNDER 48 SL

Reg No. 11708 Act/Wet Nr. / No. 36 of / van 1947

HERBICIDE



**READ THE LABEL AND ATTACHED PACKAGED LEAFLET BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

HRAC HERBICIDE GROUP CODE:

2

HRAC ONKRUIDDODER GROEPKODE:

A water soluble post-emergent herbicide for the control of annual broadleaf- and grass weeds in Clearfield® Sunflowers.

'n Wateroplosbare na-opkoms onkruidodder vir die beheer van seker eenjarige breëblaar -en grasonkruid in Clearfield® Sonneblom.

ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL:

Imazamox (Imidazolinone).....33 g/l..... Imasamoks (imidasolinoon)
Imazapyr (imidazolinone).....15 g/l Imasapir (imidasolinoon)



WARNING

Hazard Statements:

Causes skin irritation.
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

IF ON SKIN: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention.

Batch No:

D.O.M:

D.O.E:

Net Contents:

See reverse of drum for details.

FOR FULL PARTICULARS SEE ATTACHED PAMPHLET.

VIR VOLLEDIGE BESONDERHEDE KYK AANGEHEGTE ETIKET.

UN No. / VR Nr: 3082



REGISTRATION HOLDER/ REGISTRASIEHOUER

Farm Ag International (Pty) Ltd
Reg. Nr: Reg. No. 2005/011761/07
61 Marshall Drive, Old Mill Industrial Park,
Mount Edgecombe, South Africa, 4300
Tel: 031 003 3486



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