



CLINCHER[®] S GOLD

Reg. no. L10748 Act/Wet 36 of/van 1947
N-AR 2136

An emulsifiable concentrate herbicide for pre-emergence control of annual grasses and under certain conditions also yellow nutsedge in various crops under different climatologically conditions in combination with different broadleaf herbicides. 'n Emulgeerbare konsentraat onkruidodder vir vooropkomsbeheer van eenjarige grasse en onder sekere omstandighede ook geeluintjies in verskeie gewasse onder verskillende klimatologiese streke in kombinasie met verskeie breëblaar onkruidodders.

HRAC HERBICIDE GROUP CODE **15** **HRAC ONKRUIDDODER GROEPKODE**

ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

S - metolachlor (chlooracetamides) 915 g/L S- metolachlor (chloorasetamiedes)

NET VOLUME/NETTO VOLUME

..... L

REGISTRATION HOLDER/REGISTRASIEHOUER

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CLINCHER[®] is the registered trademark of a company of the ADAMA GROUP.
CLINCHER[®] is die geregistreerde handelsmerk van 'n maatskappy van die ADAMA GROEP.

CONTACT IN EMERGENCY/KONTAK IN NOOD

Griffon Poison Information Centre: +27 82 446 8946
Tygerberg Poison Information Centre: +27 861 555 777

Batch number
Date of manufacture

Lotnommer
Datum van vervaardiging

UN no.:3082



**HARMFUL
SKADELIK**



WARNINGS

- Handle with care.
- Harmful if swallowed.
- May cause sensitisation by skin contact.
- Toxic to fish.
- Store in a cool place.
- Store away from food and feed.
- Keep out of reach of children, uninformed persons and animals.
- **In case of poisoning contact a doctor and make this label available to him/her.**
- **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 spray over or allow the drift to contaminate water or adjacent areas.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not guarantee that it will be effective under all conditions. The activity and effect 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 the spray mist.
- Avoid skin contact.
- Wash with soap and water after use.
- Wash contaminated clothing after use.
- 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, boreholes 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, feed, drinking water and eating utensils.
- 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.

SYMPTOMS OF HUMAN POISONING

Sedation (calming), dyspnoea (difficult breathing) and exophthalmia (protrusion of the eyeball).

FIRST AID TREATMENT

If poisoning is suspected immediately call a physician. Remove patient from further contact with pesticide and place him/her in a well-ventilated area.

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

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

If the substance has been swallowed promptly 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.

NOTE TO PHYSICIAN

No specific antidote is known. If ingested, induce emesis or lavage stomach. Administration of an aqueous slurry of activated charcoal may be considered. Apply symptomatic therapy.

RESISTANCE MANAGEMENT

For resistance management, **CLINCHER® S GOLD** is a group code 15 herbicide. Any weed population may contain individuals naturally resistant to **CLINCHER® S GOLD** and other group code 15 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly and exclusively in programs. **CLINCHER® S GOLD** or any other group code 15 herbicides may not control these resistant weeds.

To delay herbicide resistance:

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

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

USE RESTRICTIONS

Forage sorghum

CLINCHER® S GOLD can only be used on *forage sorghum* which are

- *sorghum x sorghum* hybrids or
- *sorghum x Sudan grass* hybrids.

Forage sorghum hybrids with *Pennisetum* spp or hybrids containing the BMR genes should not be sprayed with **CLINCHER® S GOLD**.

CONCEP® 960 EC seed treatment should only be used in combination with **CLINCHER® S GOLD**, METAGAN GOLD or CLINCHER® S.

Green beans

CLINCHER® S GOLD is registered on **green beans** only for use by McCain on the cultivars Fortè, Masai and Dark Seeded Provider. This registration is only valid in the production area of the Loskop irrigation scheme, Letsitele, Ohrigstad and certain areas of the Highveld.

CLINCHER® S GOLD may damage certain crops under the following conditions:

Maize and sweet corn

- Poorly drained soils.
- Soils with a compaction layer.
- Wet and cold conditions directly after an application.
- Inbred parent plants of maize hybrids. Consult a representative of ADAMA, the distributor or seed supplier.

Tobacco

- planted on very sandy and/or gravelly soils.

Grain sorghum and forage sorghum

- planted on very sandy and/or gravelly soils.
- on soils with a high percentage (> 60 %) fine sand and/or poor structure. These soils are inclined to compact with rain and are therefore poorly aerated.
- planted deeper than 50 mm.
- on fields with a high incidence of soil borne diseases and/or where monoculture is practiced.
- planted without the seed treatment CONCEP 960 EC.

Dry beans

- on fields with a high incidence of soil borne diseases and/or where monoculture is practiced.
- in hot, dry conditions especially in the presence of a compaction layer in the soil. Under these conditions beans might also be susceptible to wind damage.
- on waterlogged, shallow, sandy soils of < 100 mm depth with an impermeable clay sub soil.

Sunflowers

- on waterlogged, shallow, sandy soils of < 100 mm depth with an impermeable clay sub soil.

Important

Where other herbicides are used in combination with **CLINCHER® S GOLD** the use restrictions as given on the labels of the herbicides concerned, must be adhered to.

Warning: Possible damage to triazine sensitive crops

- Where soils have been treated with lime to correct the soil pH, the possibility of crop damage increases dramatically in fields where triazines were previously applied. This is due to the triazine molecules being replaced on the clay complex with calcium cations and the triazine thus becoming more available in the soil-water complex.
- Only maize should be planted in the season directly after soil pH adjustment with lime.
- No triazine sensitive crops should be planted in the season after the soil pH adjustment has been done with lime. This applies even if triazines were used at crop rotation rates in previous years.
- Triazine sensitive crops include all broadleaf crops e.g. different bean crops, sunflowers and all cereals e.g. wheat.
- These warnings however do not guarantee that no damage would be experienced to even the following maize crop as large volumes of previously applied triazines might now be available depending on the volume of lime applied and the rainfall experienced.

Warning: Possible increased efficacy, phytotoxicity and residual action

- Increasing the soil pH levels above 7 could produce conditions for increased efficacy and reduced selectivity. This increased pH may also result in increased soil residual action by certain herbicides influencing the choice of following crops especially under irrigation.
- In situations where pH adjustments have been done, take care when sulphonyl urea herbicides, triazolopyrimidine sulfonanilide herbicides and imidazolinone herbicides, which are all sensitive to soil pH fluctuations, have been used or are about to be used.

Contact your local ADAMA South Africa (Pty.) Ltd representative to discuss crop rotation and crop protection programmes to follow before embarking on any pH adjustment programme.

WEEDS CONTROLLED

The following weed species are normally controlled by a pre-emergence application of **CLINCHER® S GOLD** at the dosage rates indicated below:

BOTANICAL NAME	COMMON NAME
<i>Brachiaria eruciformis</i>	Sweet signal-grass
<i>Chloris virgata</i>	Feathertop Chloris
<i>Dactyloctenium aegyptium</i>	Crowfoot
<i>Digitaria sanguinalis</i>	Crab finger-grass
<i>Echinochloa crus-galli</i>	Barnyard grass
<i>Eleusine indica</i>	Goose grass

BOTANICAL NAME	COMMON NAME
<i>Panicum maximum</i>	Common buffalo grass
<i>Panicum schinzii</i>	Sweet buffalo grass
<i>Pseudobrachiaria deflexa</i>	False signal grass
<i>Setaria pallide-fusca</i>	Red bristle grass
<i>Setaria verticillata</i>	Sticky bristle grass
<i>Tragus berteronianus</i>	Small carrot seed grass
<i>Tragus racemosus</i>	Large carrot seed grass
<i>Urochloa mosambicensis</i>	Bushveld herringbone grass
<i>Urochloa panicoides</i>	Herringbone grass

Control of the following weeds is variable

BOTANICAL NAME	COMMON NAME
<i>Amaranthus hybridus</i>	Common pigweed
<i>Amaranthus spinosus</i>	Thorny pigweed
<i>Amaranthus thunbergii</i>	Red pigweed
<i>Chenopodium carinatum</i>	Green goosefoot
<i>Cleome monophylla</i>	Spindlepod
<i>Commelina benghalensis</i>	Benghal Wandering Jew
<i>Cyperus esculentus</i>	Yellow nutsedge
<i>Datura ferox</i>	Large thorn apple
<i>Datura stramonium</i>	Thorn apple
<i>Galinsoga parviflora</i>	Gallant soldier
<i>Nicandra physaloides</i>	Apple of Peru
<i>Portulaca oleracea</i>	Purslane

Important

Yellow nutsedge (*Cyperus esculentus*)

The suppression of *Cyperus esculentus* can be improved provided the following conditions are met:

- Thorough ploughing with a mould board plough immediately before planting.
- A fine, even and firm seedbed is prepared.
- The **CLINCHER® S GOLD** application is followed by at least 10 - 20 mm of soft penetrating rain (or irrigation) to leach **CLINCHER® S GOLD** into the soil prior to the emergence of *C. esculentus* (normally 7 - 10 days after ploughing). 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 obtain good results. This is the reason for the very poor control sometimes obtained on turf soils.
- Rain after the **CLINCHER® S GOLD** application but before the *Cyperus esculentus* emergence is imperative for optimal *Cyperus esculentus* control. Therefore **CLINCHER® S GOLD** should be applied directly after the planting process in moist soil.
- When planting into dry soil (insufficient moisture for *Cyperus esculentus* germination) application of **CLINCHER® S GOLD** should be timed as close as possible to, but definitely before the first rains.

Bushveld herringbone grass and herringbone grass (*Urochloa* spp)

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

DIRECTIONS FOR USE

Use only as directed

COMPATIBILITY

The compatibility of **CLINCHER® S GOLD** 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 ADAMA South Africa (Pty.) Ltd and the quality of water may vary from farm to farm, a physical compatibility test should always be carried out prior to application.

CLINCHER® S GOLD (L5749) is compatible with CALLISTO (L6795), COMPLEMENT SUPER (L8169), GARDOMIL® GOLD (L6246), GESAPRIM SUPER (L3914), COTOGARD® 500 SC (L1446), SORGOMIL® GOLD 600 SC (L6221), GESAPRIM 90 WG (L4764), HAMMER® 100 SL (L5201), IGRAN® 500 SC (L0324), KARATE ZEON (L6330), LAMDEX 5 CS (L10763), SENCOR® 480 SC (L3034), GRAMOXONE® (L1174), ADAMA PARAQUAT (L10792), TOUCHDOWN Forte HITECH (L7305), MCPA, and 2,4-D amine as recommended on this label.

MIXING INSTRUCTIONS

Half-fill the spray tank with water, then pour the required amount of **CLINCHER® S GOLD** into the spray tank while the water is being stirred. Top up with water to the final volume required.

When **CLINCHER® S GOLD** is tank mixed with other products as recommended soluble concentrates should be added to the water first. **CLINCHER® S GOLD** should then be added last, just before the required volume is reached.

When GRAMOXONE, ADAMA PARAQUAT or TOUCHDOWN Forte HITECH is included in a tank mixture it should be added last, only after all the other products including **CLINCHER® S GOLD** have been added and properly mixed just prior to the final volume being obtained.

Ensure thorough agitation of the mixture in the tank during mixing and spraying.

Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank.

APPLICATION TECHNIQUES

Ground application

CLINCHER® S GOLD may be applied with any medium or high-volume sprayer, properly calibrated, and which is equipped with an efficient agitation mechanism. Choice and arrangement of fan-type spray nozzles should be such as to ensure even distribution and optimal recovery of the herbicide. The recommended amount of **CLINCHER® S GOLD** should be applied in at least 200 L water/ha.

Post plant pre-emergence

When planting into moist soil, **CLINCHER® S GOLD** must be applied within three days of planting (but preferably at planting) on a fine, even, firm and freshly prepared weed free seedbed. To obtain good results it is necessary that rain or irrigation follows application before the weeds emerge. If rainfall does not occur in time and weeds begin to emerge and develop, a shallow cultivation must be carried out 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), **CLINCHER® S GOLD** must be applied as close to, but definitely before the first rain. Emerged weeds at the time of application will not be controlled.

Pre-plant incorporated (maize only)

In order to obtain more reliable control of *C. esculentus*, **CLINCHER® S GOLD** can be incorporated shallow into the soil prior to planting. This incorporation may be done with a Kongskilde Triple K, a Field span 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 in order to ensure effective incorporation into the top 37 - 50 mm of soil. To further ensure proper mixing of the **CLINCHER® S GOLD** with the soil, incorporation should be done at a speed of 9 - 11 km/h. Proper primary seedbed preparation should precede the incorporation of **CLINCHER® S GOLD**. The incorporation of **CLINCHER® S GOLD** 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 **CLINCHER® S GOLD** 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 **CLINCHER® S GOLD** to be absorbed by the weeds. However, less rain is required than after a pre-emergence application after planting.

Crop Post-emergence (maize, sweet corn, potatoes)

CLINCHER® S GOLD has 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 that are present after the cultivation will not be controlled.

Aerial application (pre- and post emergence)

Aerial application of this product may only be done by a registered aerial application operator using a correctly calibrated, registered 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:

a) Application parameters:

- **Volume:** A volume of 30 - 40 L/ha is recommended for pre- and post emergence applications. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy or be held responsible for any adverse effects if the product is applied aurally at a lower volume rate than recommended above.
- **Droplet coverage:** A droplet coverage of 20 - 30 droplets/cm² must be recovered at the target when applied pre-emergence and 30 - 45 droplets/cm² when applied post emergence.
- **Droplet size:** A droplet spectrum with a VMD of 350 - 400 microns is recommended for a pre-emergence application and 300 - 350 microns for a post emergence application. Ensure that the production of fine droplets (less than 150 microns - high drift & evaporation potential) is restricted to a minimum.
- **Flying height:** The height of the spray boom should be maintained at 3 - 4 meters above the target. Do not spray when aircraft is in a climb, at the top or during a dive, or when banking.

b) Equipment:

- Use suitable atomizing equipment (hydraulic nozzles or rotary atomizers) that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product either through endodrift (within target field) or exodrift (outside target field). The operator must use a setup that will produce a droplet spectrum with the lowest possible relative span.
- All nozzles / atomizers should be positioned within the inner 60% to 75% of the wingspan to prevent droplets from entering the wingtip vortices.

c) Meteorological conditions:

- The difference in temperature between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C. The addition of a suitable anti-evaporant is recommended if the VMD of the droplets is less than 200 - 250 microns.
- Stop spraying if the wind speed exceeds 15 km/h or reduces to less than 5 km/h.
- Aerial application of this product must not be done under turbulent, unstable conditions during the heat of the day when rising thermals and downdraughts occur.
- Also note that the application of this product under temperature inversion conditions (spraying in or above the inversion layer) may lead to the following:
 - Reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage), or
 - Damage to other sensitive crops and or non-target areas through the movement of the suspended spray cloud away from the target field.

CLINCHER® S GOLD may be applied aurally in a tank mixture with either CALLISTO (pre-emergence only) or GARDOMIL GOLD or GESAPRIM SUPER or GESAPRIM 90 WG 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.

It is essential to obtain an assurance from the aerial spray operator that the above requirements are met.

Center pivot irrigation application

CLINCHER® S GOLD may be applied in irrigation water pre-emergence (after planting but before weeds or crop emerge) at rates recommended on this label.

Use only center pivot systems that apply water uniformly.

Prepare a mixture with a minimum of one part of water to one part herbicide and inject this mixture into the center pivot system using a positive displacement pump. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment.

Maintain sufficient agitation to keep the herbicide in suspension.

Apply in 12,5 - 25 mm of 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 reduce weed control by moving the herbicide below the weed germination zone in the soil.

Precautions for center pivot applications

- Apply only through irrigation systems containing anti-siphon and check valves to prevent contamination of the well during shutdown and overflow of solution tank.
- Inject ahead of any right angle turn in the main line to insure adequate mixing.
- Chemical injection pumps and water pumps must have interlocking controls to insure simultaneous shut-off.
- Application when drift may occur, such as from 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 sufficiently this may result in poor weed control. Where sprinkler distribution patterns overlap excessively, crop injury or unacceptable residues may result.

RECOMMENDATIONS AND APPLICATION RATES

MAIZE AND SWEET CORN

Pre-emergence application of **CLINCHER® S GOLD** in combination with different products.

CLINCHER® S GOLD may be applied immediately following planting but pre-emergence with respect to maize, sweet corn 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 **CLINCHER® S GOLD** 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 **CLINCHER® S GOLD** is not recommended.

Since broadleaf weeds are inadequately controlled by **CLINCHER® S GOLD**, the use of a broadleaf herbicide in combination with **CLINCHER® S GOLD** is recommended. The broadleaf herbicide may 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., *Xanthium* spp., *Tribulus terrestris*, *Commelina benghalensis* and *Cucumis myriocarpus* post-emergence treatments are preferred. The different combinations, which may be used, are indicated in the following tables.

TABLE 1: The application rate of CLINCHER® S GOLD plus GARDOMIL GOLD applied pre-emergence as a tank mixture:

Soil type	% Clay	Pre-emergence	
		CLINCHER® S GOLD (L/ha) plus	GARDOMIL GOLD (L/ha)
Sand	0 - 10	0.4 – 0.65	2.2
Loamy sand/Sandy loam	11 - 20	0.4 – 0.65	2.5
Sandy clay loam	21 - 30	0.5 – 0.70	3.2
Sandy clay loam/Sandy clay	31 - 40	0.6 – 0.70	4.0
Sandy clay/ Turf	41 - 50	0.6 – 0.80	4.8

To control *Cyperus esculentus* **CLINCHER® S GOLD** can be incorporated at the rates in Table 1 followed by a pre-emergence application of GARDOMIL GOLD at or directly after planting.

TABLE 2: The application rate of CLINCHER® S GOLD plus either GESAPRIM SUPER or GESAPRIM 90 WG applied pre-emergence in a tank mixture:

Soil type	% Clay	CLINCHER® S GOLD (L/ha) plus	Pre-emergence	
			Either GESAPRIM SUPER (L/ha)	or GESAPRIM 90 WG (kg/ha)
Sand	0 - 10	0.7 – 0.9	1.3 – 1.7	0.9 – 1.1
Loamy sand/Sandy loam	11 - 20	0.7 – 0.9	1.7 – 2.1	0.9 – 1.4
Sand clay loam	21 - 35	0.9 – 1	2.1 – 2.5	1.4 – 1.7
Sand clay loam/Sandy clay/ Turf	>35	1 – 1.2	2.5 – 3.3	1.7 – 2.2

Important

Consult the GESAPRIM SUPER and GESAPRIM 90 WG labels for crop rotation recommendations.

Use the higher rates of GESAPRIM SUPER and GESAPRIM 90 WG where longer residual action with regard to broadleaf weeds is required, especially those that germinate late in the season such as Tall **khaki weed** (*Tagetes minuta*) and **large thorn apple** (*Datura ferox*). Where khaki weed is the main problem GESAPRIM SUPER is preferred and GESAPRIM 90 WG where thorn apple is the major problem.

TABLE 3: The application rate of CLINCHER® S GOLD applied pre-emergence in a tank mixture with CALLISTO for pre-emergence grass and broadleaf control:

CLINCHER® S GOLD can be used in combination with CALLISTO (L6795) for pre-emergence grass and broadleaf control at rates ranging from 218 ml/ha to 710 ml/ha to control grasses and broadleaf weeds. When **CLINCHER® S GOLD** is used in combination with CALLISTO the rate of **CLINCHER® S GOLD** is not clay dependant but weed dependent.

(This pre-emergence application should be followed up with post-emergence applications of registered mixtures of CALLISTO, GARDOMIL GOLD, METAGAN GOLD, CLINCHER® S or GESAPRIM SUPER approximately 5 - 6 weeks later as indicated on these registered labels).

CALLISTO plus 156 ml/ha	CLINCHER® S GOLD 320 - 710 ml/ha
Botanical name	Common name
<i>Acanthospermum hispidum</i>	Upright starbur
<i>Chenopodium album</i>	White goosefoot
<i>Chenopodium carinatum</i>	Green goosefoot
<i>Echinochloa colona</i>	Marsh grass
<i>Nicandra physaloides</i>	Apple of Peru
<i>Physalis angulata</i>	Wild gooseberry
<i>Setaria pallide-fusca</i>	Red bristle grass
<i>Tagetes minuta</i>	Tall khaki weed

CALLISTO plus 156 ml/ha	CLINCHER® S GOLD 426 - 710 ml/ha
Botanical name	Common name
All the above weeds plus	
<i>Eleusine indica</i>	Goose grass
<i>Panicum schinzii</i>	Sweet buffalo grass

CALLISTO plus 208 ml/ha	CLINCHER® S GOLD 426 - 710 ml/ha
Botanical name	Common name
All the above weeds plus	
<i>Amaranthus hybridus</i>	Common pigweed
<i>Brachiaria eruciformis</i>	Sweet signal grass
<i>Datura ferox</i>	Large thorn apple
<i>Eragrostis curvula</i>	Weeping love grass
<i>Hibiscus trionum</i>	Bladder weed
<i>Polygonum aviculare</i>	Prostrate knotweed

CALLISTO plus 208 ml/ha	CLINCHER® S GOLD 568 - 710 ml/ha
Botanical name	Common name
All the above weeds plus	
<i>Cleome monophylla</i>	Spindlepod
<i>Commelina benghalensis</i>	Benghal wandering Jew
<i>Digitaria sanguinalis</i>	Crab fingergrass
<i>Hibiscus cannabinus</i>	Kenaf
<i>Triumfetta pilosa</i>	Burs

CALLISTO plus 260 ml/ha	CLINCHER® S GOLD 710 ml/ha
Botanical name	Common name
All the above weeds plus	
<i>Urochloa panicoides</i>	Herringbone grass
<i>Xanthium strumarium</i>	Cocklebur

CALLISTO plus 260 ml/ha	CLINCHER® S GOLD 710 ml/ha
Botanical name	Common name
Only suppression of:	Only suppression of:
<i>Bidens bipinnata</i>	Spanish blackjack
<i>Bidens pilose</i>	Common blackjack
<i>Citrullus lanatus</i>	Wild watermelon
<i>Cosmos bipinnatus</i>	Cosmos
<i>Crotalaria sphaerocarpa</i>	Mealie Crotalaria
<i>Cyperus esculentus</i>	Yellow nutsedge
<i>Ipomoea purpurea</i>	Common morning glory
<i>Portulaca oleracea</i>	Purslane
<i>Tribulus terrestris</i>	Dubbeltjie

Consult the CALLISTO labels for detailed recommendations.

The pre-emergence application of **CLINCHER® S GOLD** followed by a post-emergence application of different products.

TABLE 4: The application rate of CLINCHER® S GOLD applied pre-emergence or pre-plant incorporated followed by GARDOMIL GOLD early post-emergence:

		Pre-emergence	followed by	Post-emergence
Soil type	% Clay	CLINCHER® S GOLD (L/ha)	GARDOMIL GOLD (L/ha)	
Sand	0 - 10	0.5 – 0.65	2.3	
Loamy sand/Sandy loam	11 - 20	0.5 – 0.65	2.8	
Sandy clay loam	21 - 30	0.65 – 0.8	3.2	
Sandy clay loam/Sandy clay	31 - 40	0.75 – 0.9	3.2 – 4.8	
Sandy clay/ Turf	41 - 50	0.8 - 1	3.2 – 4.8	

Important

COMPLEMENT SUPER at 100 ml/ha must be added to this post-emergence spray mixture.

Crop rotation

The above-mentioned quantities of GARDOMIL GOLD recommended in Tables 1, 2 and 3 may damage triazine sensitive follow-up crops e.g. groundnuts, dry beans, soybeans, sunflowers, wheat, vegetables, cotton and tobacco. Where these crops are planted as follow-up crops the application rate of GARDOMIL GOLD should not exceed 2.2 L /ha (Table 4) or GESAPRIM SUPER should not exceed 1.7L/ha (Table 5).

In crop rotation situations **CLINCHER® S GOLD** and GARDOMIL GOLD can be applied in a tank mix pre-emergence of the maize and the weeds. However, if **CLINCHER® S GOLD** is incorporated before planting the GARDOMIL GOLD should be applied pre-emergence of both the crop and the weed according to the rates in Table 4.

TABLE 5: The application rate of CLINCHER® S GOLD plus GARDOMIL GOLD applied pre-emergence as a tank mixture or pre-plant incorporated application of CLINCHER® S GOLD followed by pre-emergence application of GARDOMIL GOLD to facilitate crop rotation:

Soil type	% Clay	Pre-emergence	
		CLINCHER® S GOLD (L/ha) plus	GARDOMIL GOLD (L/ha)
Sand/Loamy sand/Sandy loam	0 - 20	0.5 – 0.65	2.2
Sandy clay loam	21 - 30	0.6 – 0.8	2.2
Sandy clay loam/Sandy clay	31 - 40	0.8 – 0.9	2.2
Sandy clay/Turf	41 - 50	0.9 – 1.1	2.2

TABLE 6: The application rate of CLINCHER® S GOLD applied pre-emergence or pre-plant incorporated followed by an early post emergence application of GESAPRIM SUPER plus 2,4-D amine:

		Pre-emergence	followed by	Post-emergence
Soil type	% Clay	CLINCHER® S GOLD (L/ha) plus	GESAPRIM SUPER + 2,4-D amine (480 g ai /L),	
Sand/Loamy sand/ Sandy loam	0 - 20	0.7 – 0.9	All soil types: either 1.25 L GESAPRIM SUPER + 0.75 L 2,4 - D amine or 1.7 L GESAPRIM SUPER + 0.5 L 2,4-D amine	
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		

Do not add COMPLEMENT SUPER (or any other adjuvant) to the GESAPRIM SUPER plus 2,4-D amine mixture.

COMMENTS TABLES 1, 2, 3, 4, 5 and 6

Sweetcorn

Do not use GARDOMIL GOLD as follow-up application or in combination with **CLINCHER® S GOLD** on sweet corn. Use only the recommendations in Table 6.

Weeds

- *Cyperus esculentus*
 - Use the higher application rates of **CLINCHER® S GOLD** for improved control.
 - Where EPTC is used for the control of yellow **nutsedge** (*C. esculentus*) and grasses, improved late season control of these weeds can be obtained if EPTC is followed by an early post-emergence application of a **CLINCHER® S GOLD** plus GARDOMIL GOLD tank mixture. EPTC should be used as recommended on the label.
- *Digitaria sanguinalis*
 - Use the higher application rates of **CLINCHER® S GOLD** where heavy infestations exist.
- *Brachiaria eruciformis*
 - Use the higher application rates of **CLINCHER® S GOLD** for good control.

Application methods - incorporation

Use the higher application rates when **CLINCHER® S GOLD** is pre-plant incorporated.

Soils

Use the higher application rates of **CLINCHER® S GOLD** where organic matter in the soil exceeds 1 %.

On soils containing more than 30 % clay broadleaf weeds may not be controlled satisfactorily pre-emergence (Table 1) and preference should be given to post-emergence control of broadleaf weeds (Tables 3 and 4).

On soils containing more than 30 % clay where the **CLINCHER® S GOLD** plus GARDOMIL GOLD split treatment is selected, the rate of GARDOMIL GOLD can be varied according to the degree of pre-emergence control achieved and the prevailing weather conditions.

On soils with 0 - 10 % clay in the North West Province and North Western Free State or on calcareous soils the low rates of GARDOMIL GOLD (Table 5) may still damage follow-up crops.

These low rates may result in poorer broadleaf control and shorter residual effect on soils with more than 20 % clay (Table 5). Thus, post-emergence control of broadleaf weeds as recommended in Table 4 is preferred when crop rotation with sensitive crops is practiced.

Adjuvants

COMPLEMENT SUPER at 100 ml/ha must be added to the spray mixture when GARDOMIL GOLD is applied post-emergence.

Mode of action

Grass killers belonging to the chloroacetamide group of herbicides (that includes **CLINCHER® S GOLD**) are absorbed via the coleoptiles of grass weeds. Therefore, for good grass control the herbicide needs to be present at lethal concentrations in the top \pm 50 mm of the soil profile. The adsorptive capacity of a soil for these herbicides, as well as the amount of water that moves through the soil profile with rain / irrigation, determine 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 can be reduced to sub-lethal concentrations in the top \pm 50 mm after 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. It can therefore happen that grasses germinate if such conditions prevail. A split application (as recommended in Table 4) is recommended if **CLINCHER® S GOLD** is used on such soils. Permeating and/or persistent rain after the split application will have the same result.

Consult the GARDOMIL GOLD and GESAPRIM SUPER labels for additional information.

The use of **CLINCHER® S GOLD** in combination with products to control *Cyperus esculentus*.

TABLE 7: The application rate of CLINCHER® S GOLD applied early post- emergence in a tank mixture with GARDOMIL GOLD after initial application of EPTC:

Soil type	% Clay	Early post-emergence	
		CLINCHER® S GOLD (L/ha) plus	GARDOMIL GOLD (L/ha)
Sand	0 - 10	0.55	2.2
Loamy sand/Sandy loam	11 - 20	0.5	2.5
Sandy clay loam	21 - 30	0.6	3.2

Important

COMPLEMENT SUPER at 100 ml/ha must be added to this post-emergence spray mixture.

The use of **CLINCHER® S GOLD** in combination with different products to improve initial broadleaf control.

In order to improve the variable initial broadleaf control of **CLINCHER® S GOLD** it can be used pre-emergence in a tank mixture with GARDOMIL GOLD followed early post-emergence with GARDOMIL GOLD.

TABLE 8: The application rate of CLINCHER® S GOLD applied pre-emergence in a tank mixture with GARDOMIL GOLD for more reliable initial broadleaf control:

Soil type	% Clay	Pre-emergence		Early post emergence
		CLINCHER® S GOLD (L/ha) plus	GARDOMIL GOLD (L/ha) followed by	GARDOMIL GOLD (L/ha)
Sand/Loamy sand /Sandy loam	0 - 20	0.65	0.8	2.0
Sandy clay loam	21 - 30	0.75	1	2.2
Sandy clay loam/Sandy clay	> 30	0.9	1.2	2.8

Important

COMPLEMENT SUPER at 100 ml/ha must be added to the spray mixture when GARDOMIL GOLD is applied post-emergence.

The use of **CLINCHER® S GOLD** in stale seedbeds or minimum tillage or stubble mulch.

Maize, sweet corn, grain sorghum

Where minimum tillage or stubble mulch is practiced, weeds may have emerged at the time of planting. If crops are planted under such conditions or into a stale seedbed, where grass weeds have already emerged and/or the broadleaf weeds have developed beyond the seedling stage, it is recommended that either TOUCHDOWN Forte HITECH or GRAMOXONE or ADAMA PARAQUAT be added to **CLINCHER® S GOLD** according to the recommendations of the manufacturer. The TOUCHDOWN Forte HITECH or GRAMOXONE or ADAMA PARAQUAT will destroy the emerged weeds and create a pre-emergence situation for the **CLINCHER® S GOLD** to act.

When TOUCHDOWN Forte HITECH or GRAMOXONE or ADAMA PARAQUAT is added, spraying should be carried out prior to emergence of the crop, as TOUCHDOWN Forte HITECH or GRAMOXONE or ADAMA PARAQUAT will damage the crop if it is applied post-emergence.

In the case of minimum tillage or stubble mulch the density of the stubble and humus may affect the efficacy of **CLINCHER® S GOLD**. Therefore, consult a representative of ADAMA or distributor.

Important

All dosage rates given above apply to full cover sprays. In the case of band treatment over the rows the corresponding amount of herbicide should be calculated in accordance with the band and row widths.

Ensure that the crop is properly fertilized to ensure vigorous seedling growth.

GROUNDNUTS, GREEN BEANS, DRY BEANS, KIDNEY BEANS, SUNFLOWERS, SOYBEANS AND LUPINES:

Pre-emergence **CLINCHER® S GOLD** applications rates in different broadleaf crops.

TABLE 9: The application rate of **CLINCHER® S GOLD for the different broadleaf crops on various soil types and for the control of certain weeds:**

Soil type	% Clay	Pre-emergence
		CLINCHER® S GOLD (L/ha)
Sand/Loamy sand/Sandy loam	0 - 20	0.6 – 0.8
Sandy clay loam	21 - 30	0.8 – 1
Sandy clay loam/Sandy clay	>30	1 – 1.3

Use the higher application rate of **CLINCHER® S GOLD** for improved control of **yellow nutsedge** (*C. esculentus*) or where heavy infestations of **crab finger-grass** (*D. sanguinalis*) exist or where the organic matter in the soil exceeds 1 %.

Important - Groundnuts only

To obtain good broadleaf control, IGRAN 500 SC may be added to **CLINCHER® S GOLD** at the rates indicated on the IGRAN 500 SC label as per soil type.

IGRAN 500 SC is only recommended where overhead sprinkler irrigation is practiced.

Tank mixtures with **CLINCHER® S GOLD** and HAMMER 100 SL on different crops.

TABLE 10: The application rate of CLINCHER® S GOLD in a tank mixture with HAMMER 100 SL on dry beans for the control of certain weeds:

Soil type	% Clay	Pre-emergence	
		CLINCHER® S GOLD (L/ha)	HAMMER 100 SL (L/ha)
Sand/Loamy sand	0 - 15	0.6	0.3
Sandy loam/Sandy clay loam	16 - 25	0.6	0.4
Sandy clay loam/Sandy clay	26 - 35	0.8	0.5
Sandy clay/Turf	>35	NOT RECOMMENDED	

Tank mixtures with **CLINCHER® S GOLD** and HAMMER 100 SL on groundnuts and soybeans.

TABLE 11: The application rates CLINCHER® S GOLD in a tank mixture with HAMMER 100 SL on groundnuts and soybeans for the control of certain weeds:

Soil type	% Clay	Pre-emergence	
		CLINCHER® S GOLD (L/ha)	HAMMER 100 SL (L/ha)
Sand/Loamy sand/Sandy loam	0 - 25	0.5 – 0.8	0.4
Sandy clay loam/Sandy clay	26 - 35	0.8 - 1	0.5
Sandy clay/Turf	>35	NOT RECOMMENDED	

Remarks (Tables 10 and 11)

A tank mixture of **CLINCHER® S GOLD** plus HAMMER 100 SL may damage the crop when used on a soil with a pH of more than 7.

The control of certain weeds may be detrimentally affected under the following conditions:

- A poorly prepared seedbed.
- Soils with a pH (H₂O) of less than 5.
- Dry conditions directly after application or a lack of sufficient rain on heavy soils.
- Consult the HAMMER 100 SL label for full details.

Tank mixtures with **CLINCHER® S GOLD** and SENCOR 480 SC on soyabeans.

The following application rates as tank mixtures of **CLINCHER® S GOLD** plus SENCOR 480 SC are recommended on soybeans on various soil types and for the control of certain weeds as indicated on the SENCOR 480 SC label, additional to that controlled by **CLINCHER® S GOLD**.

TABLE 12: The application rates of CLINCHER® S GOLD in a tank mixture with SENCOR 480 SC on soybeans:

Soil type	% Clay	Pre-emergence	
		CLINCHER® S GOLD (L/ha)	SENCOR 480 SC (L/ha)
Sand	0 - 10	NOT RECOMMENDED	
Loamy sand/Sandy loam	11 - 20	0.6 – 0.8	0.54
Sand clay loam	21 - 35	0.8 - 1	0.70
Sand clay loam/Sandy clay/Turf	>35	NOT RECOMMENDED	

Remarks (Table 12)

- Use the higher application rate of **CLINCHER® S GOLD** to improve the control of *C. esculentus* (**yellow nutsedge**).
- Use the **CLINCHER® S GOLD** plus SENCOR 480 SC mixture only on soils with more than 1 % organic matter.
- See SENCOR 480 SC label for cultivars restrictions.
- Do not apply **CLINCHER® S GOLD** plus SENCOR 480 SC on soybeans, which are planted on soils with exceptionally low, or high pH (H₂O) values (lower than 4,5 and higher than 7), or on soils with mineral deficiencies or on waterlogged soils as damage might occur.
- The application of **CLINCHER® S GOLD** plus SENCOR 480 SC on light soils early in the season under conditions of low night temperatures may cause damage.
- Over-application, application at the incorrect growth stage, or any other use not in accordance with the directions on the **CLINCHER® S GOLD** and SENCOR 480 SC labels, may cause stunting of the crop and other adverse effects.
- Consult the SENCOR 480 SC label for full details.

POTATOES (SUMMER RAINFALL REGION ONLY)

Apply 1.3 L/ha **CLINCHER® S GOLD** on all soil types. To obtain good broadleaf weed control SENCOR 480 SC may be added to **CLINCHER® S GOLD** at a rate of 1.1 L/ha. When used in combination with SENCOR 480 SC, the rate of **CLINCHER® S GOLD** may be lowered to 1 L/ha where potatoes are planted during the rainy season or under irrigation. Where potatoes are planted on dry land, prior to the start of the rainy season, the higher rate of **CLINCHER® S GOLD** should be applied even when used in combination with SENCOR 480 SC.

The restrictions with regard to **SENCOR 480 SC** as indicated on its label must be observed.

Ridging

After herbicide application, ridging should be delayed as long as possible since untreated soil is brought to the surface by this operation, which may result in a new flush of weed growth. **CLINCHER® S GOLD** can also be applied post-emergence to the potatoes after ridging. Under these circumstances a directed application is preferable although not essential.

COTTON

Apply **CLINCHER® S GOLD** at a rate of 0.5 – 0.6 L/ha **only in tank mixture with COTOGARD 500 SC**. At this low rate *Cyperus esculentus* and *Panicum maximum* will not be well controlled. The detailed recommendations are given on the COTOGARD 500 SC label.

Important

Where **CLINCHER® S GOLD** is sprayed onto uncovered cottonseed it may cause damage. Therefore, ensure proper coverage of the cottonseed with soil.

GRAIN SORGHUM / FORAGE SORGHUM

CLINCHER® S GOLD may be used in grain sorghum and forage sorghum **provided the sorghum seed has been properly treated as prescribed with CONCEP® 960 EC**. The following application rates are recommended for the control of annual grasses and partial control of *Cyperus esculentus*.

CLINCHER® S GOLD can only be used on forage sorghum which are *sorghum x sorghum* hybrids and sorghum x Sudan grass hybrids. Forage Sorghum hybrids with *Pennisetum* spp or hybrids containing the BMR genes should not be sprayed with **CLINCHER® S GOLD**. CONCEP® 960 EC seed treatment should only be used in combination with **CLINCHER® S GOLD**, METAGAN GOLD or CLINCHER® S.

TABLE 13: The application rates of CLINCHER® S GOLD when applied on CONCEP 960 EC treated sorghum (refer to the CONCEP label for the treatment and rates used):

		Pre-emergence
Soil type	% Clay	CLINCHER® S GOLD (L/ha)
Sand/Loamy sand/Sandy loam	0 - 20	NOT RECOMMENDED
Sandy clay loam	21- 30	0.8
Sandy clay	31 - 40	0.95
Turf	>40	0.95 – 1.3

Important

On turf soils, *Brachiaria eruciformis* may require 1.3 L/ha of **CLINCHER® S GOLD** for good control. It may also improve the control of *Cyperus esculentus*.

Use the higher application rates of **CLINCHER® S GOLD** where heavy infestations of *Digitaria sanguinalis* (**crab finger- grass**) exist.

If grain and forage sorghum seed are not properly pre-treated with CONCEP 960 EC, **CLINCHER® S GOLD** will cause severe injury to the crop.

CLINCHER® S GOLD may temporarily damage grain and forage sorghum when high soil moisture conditions occur 4 - 6 weeks after planting. The crop will normally outgrow this injury without any detrimental effect on yield.

If a soil crust is formed it should be broken up immediately by means of shallow cultivation.

Control of broadleaf weeds on grain sorghum only

A tank mix of **CLINCHER® S GOLD** + SORGOMIL GOLD 600 SC at 0.5 L/ha + 2.9 L/ha may also be used for pre-emergence weed control in grain sorghum on soils with 21 - 30 % clay and 0.6 L + 3.6 L/ha respectively on soils with 31 - 35 % clay. (Consult the SORGOMIL GOLD 600 SC label.)

On all soil types a pre-emergence treatment of **CLINCHER® S GOLD** for grass control may be followed by an early post-emergence treatment of GESAPRIM SUPER plus 2,4-D amine to control the broadleaf weeds (consult the GESAPRIM SUPER label).

An alternative after a pre-emergence treatment of **CLINCHER® S GOLD** is an early post-emergence follow-up treatment with SORGOMIL GOLD 600 SC. SORGOMIL GOLD 600 SC may only be applied from the 5-leaf stage of the grain sorghum.

When crop rotation is practiced the SORGOMIL GOLD 600 SC rate must not exceed 2 L/ha. Consult the SORGOMIL GOLD 600 SC label. The following application rates should be used:

TABLE 14: The application rates of CLINCHER® S GOLD followed by SORGOMIL GOLD 600 SC to improve broadleaf weed control on grain sorghum:

Soil type	% Clay	Pre-emergence	followed by	Post-emergence
		CLINCHER® S GOLD (L/ha)	SORGOMIL GOLD 600 SC (Lha)	
Sand/Loamy sand	0 - 15	NOT RECOMMENDED		
Sandy loam	16 - 20	0.5	2.6	
Sandy clay loam	21 - 30	0.6	3	
Heavier soils including Turf	>30	0.7 – 1	3	

Important

The adjuvant COMPLEMENT SUPER should be added to all post-emergence applications except GESAPRIM SUPER plus 2,4-D amine.

On turf soils 1 L/ha **CLINCHER® S GOLD** may be required for good control of *B. eruciformis* and *D. sanguinalis*, it can also be used for improved control of *C. esculentus*.

TOBACCO (SUMMER RAINFALL REGION ONLY)

Apply **CLINCHER® S GOLD** as a full cover spray within 3 days after transplanting of the tobacco while the plants are still wilted. When **CLINCHER® S GOLD** is applied to turgid tobacco transplants the spray must be directed in such a way that it does not enter the funnel of the plant where it may damage the growing point. Where **CLINCHER® S GOLD** is sprayed on the leaves of actively growing tobacco scorching may occur. On light soils (0 -10 % clay) **CLINCHER® S GOLD** must only be applied between plant rows in such a way that an unsprayed strip with a width of about 20 - 25 cm on top of the ridge (i.e., 10 cm on both sides of the plant row) is left.

Existing weeds must be removed before **CLINCHER® S GOLD** application. This may be done mechanically or by hand or by application of GRAMOXONE or ADAMA PARAQUAT immediately before transplanting. Any growing weeds present at the time of application will not be controlled. Where tobacco is planted on ridges, use 110 ° nozzles and position the nozzles between the ridges. This will ensure more even distribution of the herbicide.

In order to activate the **CLINCHER® S GOLD**, overhead irrigation of at least 10 mm but not more than 15 mm should be applied within 2 - 3 days after **CLINCHER® S GOLD** application on soils with less than 35 % clay and at least 20 mm but not more than 30 mm on soils with more than 35 % clay.

Only strong and healthy plants should be transplanted.

Transplanted tobacco plants with roots exposed to **CLINCHER® S GOLD** at the time of application will be adversely affected. Ensure, therefore, that planting is done properly.

TABLE 15: The application rates of CLINCHER® S GOLD on tobacco:

Soil type	% Clay	Pre-emergence
		CLINCHER® S GOLD (L/ha)
Sand	0 - 10	0.5
Loamy sand /Sandy loam	11 - 20	0.7
Sandy clay loam	21 - 35	1
Sandy clay	>35	1.4

CALLISTO®, **COMPLEMENT®**, **CONCEP®**, **GARDOMIL®**, **GESAPRIM®**, **GRAMOXONE®**, **IGRAN®**, **SORGOMIL® TOUCHDOWN®** = Registered Trade Marks of a Syngenta Group Company.

SENCOR® = Registered Trade Mark of Bayer (Pty) Limited.

COTOGARD® = Registered Trade Mark of ADAMA South Africa (Pty) Ltd.

HAMMER® = Registered Trade Mark of BASF.

WAARSKUWINGS

- Hanteer versigtig.
- Skadelik indien ingesluk.
- Mag sensitiserings veroorsaak deur velkontak.
- Toksies vir visse.
- Berg in 'n koel plek.
- Berg 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 toediening betree nie tensy beskermde 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 water of aangrensende gebiede spuit of die spuitnewel toelaat om dit te besoedel nie.

Hoewel 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 doeltreffendheid daarvan kan beïnvloed word deur faktore soos abnormale grond-, klimaats- en bergingstoestande, kwaliteit van die 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 en die omgewing of nadelige invloede op mens of dier of vir 'n gebrek aan prestasie van die betrokke middel as gevolg van versuim van die gebruiker om etiketaanwysings na te kom, of as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kon word nie. Raadpleeg die verskaffer in die geval van enige onsekerheid.

VOORSORGMAATREËLS

- Moet nie die spuitnewel inasem nie.
- Vermy velkontak.
- Was met seep en water na gebruik.
- Was besoedelde klere na gebruik.
- Moet nie eet, drink of rook tydens vermenging of toediening van die produk of voordat **die** hande en gesig gewas is nie.
- Vermy spuitnewel op ander gewasse, weiveld, riviere, damme, boorgate en plekke wat nie behandel moet word nie.
- Maak toedieningsapparaat skoon na gebruik. Uitspoelwater moet nie gewasse, weiveld, riviere, damme en boorgate besoedel nie.
- Voorkom die besoedeling van voedsel, voer, drinkwater en eetgerei.
- Keer die leë houer oor die spuit-of mengtenk om en dreineer vir minstens 30 sekondes nadat die vloeï tot 'n drup verminder het. Spoel daarna die leë houer drie keer na mekaar met een kwart van die houervolume vars water en giet die spoelwater in die spuittenk of mengtenk oor. Kap

gate in die drie-keer gespoelde houer waarna dit aan 'n goedgekeurde versamelaar of verwerker oorhandig moet word (www.croplife.co.za).

- Moet nie die houer begrawe, verbrand of aan enige ander partye skenk wat dit as houer vir voedsel of drinkgoed mag gebruik nie.

SIMPTOME VAN MENSLIKE VERGIFTIGING

Sedasie (kalmte), dispnee (asemnood) en exophthalmia (ooguitpeuling).

NOODHULPBEHANDELING

As vergiftiging vermoed word skakel 'n dokter onmiddellik. Verwyder pasiënt van verdere blootstelling aan die middel en plaas hom/haar in 'n goed geventileerde omgewing.

In geval van oogkontak, hou ooglede oop en was uit met 'n egalige, ligte straal water vir 15 minute.

In geval van velkontak, was met baie seep en water. Kontak 'n dokter as irritasie voortduur.

Indien die middel ingesluk word, moet 'n groot hoeveelheid melk, eierwit of gelatienoplossing so spoedig as moontlik toegedien word, of indien dit nie beskikbaar is nie, groot hoeveelhede water. Moet nie braking veroorsaak nie of enige iets per mond toedien aan 'n bewustelose persoon nie.

NOTA AAN GENEESHEER

Geen spesifieke teenmiddel is bekend nie. As inname plaasgevind het, veroorsaak braking of maagspoeling. Oorweeg die toediening van 'n waterige oplossing geaktiveerde mediese houtskool. Behandel simptome.

WEERSTANDBESTUUR

Vir die doel van weerstandbestuur is **CLINCHER® S GOLD** 'n groep kode 15 onkruidodder. Enige onkruid populasie mag individue wat natuurlik weerstandbiedendheid toon teen **CLINCHER® S GOLD** en ander groep kode 15 onkruidodders bevat. Hierdie weerstandbiedende individue kan uiteindelik die onkruid populasie domineer as hierdie produkte aanhoudend en eksklusief gebruik word. In sulke gevalle mag **CLINCHER® S GOLD** of enige van die 15 onkruidodders probleme ondervind om die weerstandbiedende individue te beheer.

Om onkruidodder weerstandbiedendheid te vertraag moet :

- die eksklusiewe en herhaaldelike gebruik van onkruidodders in dieselfde onkruid groep vermy word. Hierdie produkte moet met ander onkruidodders van ander groep kodes afgewissel word of in tenkmengsels vermeng word.
- Integreer ander beheermaatreëls (chemies, biologiese en bewerkings metodes) onkruidbeheerprogramme.

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

GEBRUIKSBEPERKINGS

Voersorghum

CLINCHER® S GOLD kan net op **voersorghum** gebruik word wat

- *sorghum x sorghum* kruisings of

- *sorghum x sudan* gras kruisings is.

Kruisings met *Pennisetum* spp en kruisings wat die BMR gene bevat mag nie met **CLINCHER® S GOLD** gespuit word nie.

CONCEP® 960 EC saadbehandeling word slegs aanbeveel vir die gebruik saam met **CLINCHER® S GOLD**, METAGAN GOLD of CLINCHER® S.

Groenbone

CLINCHER® S GOLD is slegs geregistreer op **groenbone** vir gebruik deur McCain op die kultivars Fortè, Masai en Dark Seeded Provider in die produksiegebiede van die Loskopskema, Letsitele, Ohrigstad en enkele gedeeltes van die Hoëveld.

CLINCHER® S GOLD mag sekere gewasse beskadig onder die volgende omstandighede:

Mielies en suikermielies

- Swak gedreineerde gronde.
- Gronde met 'n verdigtingslaag.
- Nat en koue toestande direk na 'n toediening.
- Ingeteelde ouerplante van mieliebasters. Raadpleeg in hierdie verband eers 'n verteenwoordiger van ADAMA Suid-Afrika (Pty.)Ltd, die verspreider of saadverskaffer.

Tabak

- wat op baie sanderige en/of gruiserige grond geplant word.

Graansorghum en voersorghum

- wat op baie sanderige en/of gruiserige grond geplant word.
- op gronde met 'n hoë persentasie (> 60 %) fynsandinhoud en/of swak struktuur wat geneig is om toe te slaan en te verdig na reën en gevolglik swak deurlug is.
- wat dieper as 50 mm geplant is.
- wat op landerye met 'n hoë voorkoms van grondgedraagde siektes en/of waar monokultuur toegepas word.
- wat sonder die saad behandeling CONCEP 960 EC geplant is.

Droëbone

- wat op landerye met 'n hoë voorkoms van grondgedraagde siektes en/of waar monokultuur toegepas word.
- onder warm droë toestande veral wanneer 'n verdigte laag in die grond voorkom. Onder hierdie toestande kan bone meer vatbaar wees vir windskaad.
- onder versuiptoestande op vlak, sanderige gronde, < 100 mm diep, met 'n ondeurdringbare kleiondergrond.

Sonneblomme

- onder versuiptoestande op vlak, sanderige gronde, < 100 mm diep, met 'n ondeurdringbare kleiondergrond.

Belangrik

Indien ander onkruidodders in kombinasie met **CLINCHER® S GOLD** gebruik word, moet die gebruiksbeperkings van hierdie onkruidodders, soos op die betrokke etiket aangedui, nagekom word.

Waarskuwing: Moontlike beskadiging van triasien sensitiewe gewasse

- Waar gronde met kalk behandel is om die grond pH te verstel, mag die moontlikheid van gewas beskadiging dramaties verhoog in gronde waar triasienes voorheen toegedien is. Dit gebeur as gevolg van die triasien molekule wat op die klei kompleks vervang word met kalsium katione en die triasien dus meer beskikbaar word in die grondwater kompleks.
- Slegs mielies moet aangeplant word in die seisoen direk na die aanbring van grond pH verstellings met kalk.
- Geen triasien sensitiewe gewasse moet geplant word in die seisoen na grond pH verstellings met kalk nie.. Dit is selfs van toepassing indien triasiene teen wisselbou dosisse gespuit is in vorige jare.
- Triasien sensitiewe gewasse sluit in alle breëblaargewasse soos verskeie boon gewasse, sonneblomme asook alle kleingraangewasse soos koring.
- Hierdie waarskuwing waarborg egter nie dat geen skade aan selfs mielies in die daaropvolgende aanplanting sal voorkom nie aangesien groot volumes vooraf toegediende triasiene beskikbaar mag raak afhangende van die volume kalk wat toegedien word en die reënval wat kan voorkom.

Waarskuwing: Moontlike verhoogde effektiwiteit, fitotoksisiteit en verlengde nawerking

- 'n Verhoging in die grond pH na vlakke bokant 7 skep toestande waar verhoogde effektiwiteit en verlaging in selektiwiteit kan voorkom. Hierdie verhoogde pH vlakke kan ook verlengde grondnawerking tot gevolg hê deur sekere onkruidodders wat veral onder besproeiing, die opvolg gewaskeuse mag beïnvloed.
- In sekere gevalle waar grond pH verstellings reeds gedoen is, moet gelet word wanneer sulfoniel ureum onkruidodders, triazolopirimidien sulfonanilied onkruidodders en imidasolinon onkruidodders wat almal baie sensitief is vir grond pH fluktuasies, reeds gebruik was of beplan word om te gebruik.

Kontak u plaaslike ADAMA Suid-Afrika (Pty) Ltd verteenwoordiger voordat op enige bekalkingsprogram besluit word om gewaskeuses en gewasbeskermingsprogramme te bespreek.

ONKRUIDE WAT BEHEER WORD

Die volgende onkruidsoorte word normaalweg beheer deur die vooropkomtoediening van **CLINCHER® S GOLD** teen die toedieningshoeveelhede soos hieronder aangedui:

BOTANIESE NAAM	GEWONE NAAM
<i>Brachiaria eruciformis</i>	Litjiesinjalgras
<i>Chloris virgata</i>	Witpluim-Chloris

BOTANIESE NAAM	GEWONE NAAM
<i>Dactyloctenium aegyptium</i>	Hoenderspoor
<i>Digitaria sanguinalis</i>	Kruisvingergras
<i>Echinochloa crus-galli</i>	Hanepootmanna
<i>Eleusine indica</i>	Jongosgras
<i>Panicum maximum</i>	Gewone buffelsgras
<i>Panicum schinzii</i>	Soetbuffelsgras
<i>Pseudobrachiaria deflexa</i>	Bastersinjaalgras
<i>Setaria pallide-fusca</i>	Rooiborselgras
<i>Setaria verticillata</i>	Klitsborselgras
<i>Tragus berteronianus</i>	Kleinwortelsaadgras
<i>Tragus racemosus</i>	Grootwortelsaadgras
<i>Urochloa mosambicensis</i>	Bosveldbeesgras
<i>Urochloa panicoides</i>	Beesgras

Onkruid wat wisselvallig beheer word

BOTANIESE NAAM	GEWONE NAAM
<i>Amaranthus hybridus</i>	Kaapse misbredie
<i>Amaranthus spinosus</i>	Doringmisbredie
<i>Amaranthus thunbergii</i>	Rooimisbredie
<i>Chenopodium carinatum</i>	Groenhondbossie
<i>Cleome monophylla</i>	Rusperbossie
<i>Commelina benghalensis</i>	Bengaalse Wandelende Jood
<i>Cyperus esculentus</i>	Geeluintjie
<i>Datura ferox</i>	Groot stinkblaar
<i>Datura stramonium</i>	Stinkblaar
<i>Galinsoga parviflora</i>	Knopkruid

BOTANIESE NAAM	GEWONE NAAM
<i>Nicandra physalodes</i>	Basterappelliefie
<i>Portulaca oleracea</i>	Porslein

Belangrik

Geeluintjie (*Cyperus esculentus*)

Die onderdrukking van *Cyperus esculentus* kan verbeter mits aan die volgende voorwaardes voldoen word:

- Die plantproses onmiddellik voorafgegaan word deur 'n deeglike skaarploeg bewerking.
- 'n Fyn, egalige en ferm saadbed voor te berei.
- Die **CLINCHER® S GOLD** moet toediening gevolg word deur minstens 10 - 20 mm sagte deurdringende reën (of besproeiing) om **CLINCHER® S GOLD** in die grond in te loog voordat *Cyperus esculentus* opkom (gewoonlik 7 - 10 dae na deeglike grondbewerking/ploeg). Die kans vir hierdie toestande om voor te kom, is groter tydens die laaste helfte van die plantseisoen. Namate die grond swaarder word, is meer reën of besproeiing nodig om goeie resultate te verkry. Om hierdie rede is beheer soms baie swak op turfgronde.
- Reënval na onkruidodertoediening maar voor *Cyperus esculentus* opkoms is noodsaaklik vir optimale *Cyperus esculentus* beheer. Gevolglik moet **CLINCHER® S GOLD** 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 **CLINCHER® S GOLD** uitgestel word tot so na as moontlik aan, maar beslis voor die eerste reën.

Bosveldbeesgras en beesgras (*Urochloa* spp)

Urochloa spesies ontkiem baie vlak en in gevalle waar beperkte of geen meganiese bewerking plaasvind, soos in minimum tot geen bewerking, mag swak beheer van die grasse verkry word weens die vlak ontkieming of selfs ontkieming op die oppervlak van die grond, asook die gebrek aan inwerking van die saad in die grondprofiel.

GEBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

VERENIGBAARHEID

Die verenigbaarheid van **CLINCHER® S GOLD** met ander produkte kan beïnvloed word deur die formulering van die betrokke produkte asook deur die kwaliteit van die water. Aangesien die formulering van produkte kan verander sonder die medewete van ADAMA Suid-Afrika (Pty.)Ltd en die kwaliteit van die water ook van plaas tot plaas kan varieer, moet 'n fisiese verenigbaarheidstoets altyd uitgevoer word voordat gespuit word.

CLINCHER® S GOLD (L5749) is verenigbaar met CALLISTO (L6795), COMPLEMENT SUPER (L8169), GARDOMIL® GOLD (L6246), GESAPRIM SUPER (L3914), COTOGARD® 500 SC (L1446), SORGOMIL® GOLD 600 SC (L6221), GESAPRIM 90 WG (L4764), HAMMER® 100 SL (L5201), IGRAN® 500 SC (L0324), KARATE ZEON (L6330), LAMDEX 5 CS (L10763), SENCOR® 480 SC (L3034), GRAMOXONE® (L1174), ADAMA PARAQUAT (L10792), TOUCHDOWN Forte HITECH (L7305), MCPA, en 2,4-D amien soos op hierdie etiket aanbeveel.

MENGINSTRUKSIES

Maak die spuittenk halfvol met water en voeg die benodigde hoeveelheid **CLINCHER® S GOLD** by terwyl die water in die tenk geroer word. Vul die tenk verder totdat die verlangde volume verkry is.

Wanneer **CLINCHER® S GOLD** in die spuittenk met ander produkte as soos aanbeveel vermeng word moet die oplosbare konsentrate eerste by die water gevoeg word. **CLINCHER® S GOLD** moet dan laaste bygevoeg word net voordat die verlangde volume in die spuittenk bereik word.

Wanneer GRAMOXONE, ADAMA PARAQUAT of TOUCHDOWN Forte HITECH in 'n tenkmengsel ingesluit word, moet dit heel laaste, nadat al die ander middels insluitend **CLINCHER® S GOLD**, reeds bygevoeg en deeglik gemeng is, in die spuittenk bygevoeg word net voordat die finale volume 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.

TOEDIENINGSTEGNIEKE

Grondtoediening

CLINCHER® S GOLD kan met enige medium of hoëvolume spuittoerusting wat met 'n doeltreffende roermeganisme toegerus is en wat korrek gekalibreer is, toegedien word. Keuse en rangskikking van waaiertipe spuitpunte moet sodanig wees dat 'n egalige verspreiding en optimale herwinning van die onkruid doder verkry word. Die aanbevole hoeveelheid **CLINCHER® S GOLD** moet in minstens 200 L water/ha toegedien word.

Na-plant vooropkoms

Wanneer in klam grond geplant word, moet **CLINCHER® S GOLD** 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 onkruid doder toediening gevolg moet word deur reën of besproeiing 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 onkruid doder met die boonste 10 - 20 mm grondlagie te vermeng.

Wanneer in droë grond (onvoldoende vog vir ontkieming) geplant word, moet **CLINCHER® S GOLD** so na as moontlik aan, maar beslis voor die eerste reën toegedien word. Onkruid wat reeds opgekom het met die tyd van toediening sal nie beheer word nie.

Voorplant ingewerk (slegs mielies)

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

Alhoewel die inwerk van **CLINCHER® S GOLD** mag lei tot meer betroubare beheer van *Cyperus esculentus* gedurende die eerste droër deel van die plantseisoen, word reën steeds nodig om die bogrond nat te kry sodat **CLINCHER® S GOLD** deur die onkruid opgeneem kan word. Minder reën is egter nodig as na 'n vooropkomstoediening na plant.

Na-opkom van die gewas (mielies, suikermielies, aartappels)

CLINCHER® S GOLD het 'n baie beperkte na-opkoms effek. 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)

Hierdie produk mag slegs deur lugbespuiting toegedien word deur 'n geregistreerde lugbespuiting operateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS 10118 (Aerial application of Agricultural Remedies). 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 belangrik om aan die volgende kriteria te voldoen:

a) Toediening parameters:

- **Volume:** 'n Volume van 30-40 L/ha word vir vooropkoms en na-opkoms bespuitings 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.
- **Druppelbedekking:** 'n Druppelbedekking van 20 - 30 druppels/cm² moet op die teikenarea herwin word vir vooropkoms bespuitings en 30 - 45 druppels/cm² vir na-opkoms bespuitings.
- **Druppelgrootte:** 'n Druppelspektrum met 'n VMD van 350 - 400 mikrons word vir vooropkoms bespuitings aanbeveel en 300 - 350 mikrons vir na-opkoms bespuitings. Verseker dat die produksie van fyn druppels (kleiner as 150 mikrons – hoë drywing en verdampingspotensiaal) tot 'n minimum beperk word.
- **Vlieghoogte:** Die hoogte van die spuitbalk moet op 3 - 4 meter bo die teiken gehandhaaf word. Moet nie spuit wanneer die vliegtuig aan die bopunt is van, of tydens 'n duik nie, of terwyl dit uitklim of draai nie.

b) Toerusting:

- Gebruik geskikte spuitapparaat (hidroliese of roterende spuitkoppe) wat die vereiste druppelgrootte en bedekking sal produseer, maar wat die minste verlies van produk deur endodrywing (binne die teikenarea) of eksodrywing (buite die teikenarea) sal verseker. Die operateur moet 'n stelsel kies wat 'n druppelspektrum met die kleinste moontlike relatiewe span sal produseer.
- Al die spuitpunte/atomiseerders moet in die binnste 60% - 75% van die vlerkspan geplaas word om die beweging van druppels in die vlerkvorteks in te beperk.

c) Meteorologiese toestande:

- Die verskil in temperatuur tussen die nat- en droëboltermometer van 'n swaaihygrometer, moet nie 8°C oorskry nie. Die byvoeging van 'n geskikte anti-evaporant word aanbeveel indien die VMD van die druppels kleiner as 200 - 250 mikrons is.

- Stop bespuiting indien die windspoed 15 km/uur oorskry of verminder na minder as 5 km/uur.
- Hierdie produk moet nie uit die lug toegedien word tydens onstabiele, turbulente toestande gedurende die hitte van die dag wanneer styg en dalende konveksie windbeweging plaasvind nie.
- Dit is belangrik om daarop te let dat die lugtoediening van hierdie produk onder temperatuur inversie toestande (deur bo of binne die inversie laag te spuit) tot die volgende mag aanleiding gee :
 - verlaagde effektiwiteit aangesien die druppels as 'n wolk in die lug bly hang en moontlik verdamp (onvoldoende bedekking op teiken), of
 - skade aan ander nie-teiken gewasse of ander sensitiewe areas a.g.v die wegdryf van die spuitwolk weg vanaf die teikenarea.

CLINCHER® S GOLD in 'n tenkmengsel met CALLISTO (slegs vooropkoms) of GARDOMIL GOLD of GESAPRIM SUPER of GESAPRIM 90 WG kan 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.

Dit is noodsaaklik om 'n versekering van die spuitoperator te verkry dat aan bogenoemde vereistes voldoen sal word.

Toediening deur spilpuntbesproeiing

CLINCHER® S GOLD mag d.m.v. besproeiingswater vooropkom (na plant maar vooropkom van die onkruid of gewas) teen toedieningshoeveelhede soos aanbeveel op hierdie etiket, toegedien 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 hierdie mengsel met 'n positief verplasinge pomp in die spilpuntsisteem in. Deur die inspuit van 'n groter volume, meer verdunde mengsel per uur kan 'n meer akkurate kalibrasie van die meettoerusting verkry word.
- Handhaaf voldoende roering om die onkruiddoder in suspensie te hou.
- Dien toe in 12,5 - 25 mm water. Gebruik die lae volume water (12,5 mm) op growwe tekstuur gronde en die hoë volume water (25 mm) op gronde met 'n fyner tekstuur. Meer as 25 mm water met toediening mag die onkruiddoder dieper as die effektiewe grondsonne beweeg en sodoende onkruidbeheer nadelig beïnvloed.

Voorwaardes vir spilpuntoedienings

- Dien slegs toe deur 'n spilpunt wat oor 'n antinewel sisteem beskik en kleppe wat die besoedeling na die bron sal verhoed gedurende die afsluit of oorloop van die oplossingstenk.
- Om voldoende vermenging te verseker, spuit in voor enige reghoekige draai op die hooflyn.
- Chemiese inspuitpompe en waterpompe moet ineengeskakelde beheermeganismes hê om gelyktydige afsluiting te verseker.
- Toediening wanneer spuitnewelwegdrywing 'n probleem mag wees bv. onder winderige toestande, of as lasplekke of verbindings lek, of as spuitpunte nie uniforme verspreiding lewer nie, mag skade aan die gewas veroorsaak.
- Indien sprinkelaarspuitpatrone nie voldoende oorvleuel nie, kan swak onkruidbeheer verkry word. Indien sprinkelaarspuitpatrone egter oormatig oorvleuel, kan skade aan die gewas of onaanvaarbare residu voorkom.

AANBEVELINGS EN TOEDIENINGSHOEVEELHEDE

MIELIES EN SUIKERMIELIES

Vooropkoms toediening van CLINCHER® S GOLD in kombinasie met verskillende produk

CLINCHER® S GOLD kan onmiddellik na plant, maar vooropkom met betrekking tot mielies, suikermielies en onkruid, toegedien word of dit kan net voor plant vlak in die grond ingewerk word. Dit kan ook na-opkoms toegedien word na 'n skoffelbewerking.

Waar **geeluintjies** (*Cyperus esculentus*) 'n belangrike deel van die onkruidpopulasie uitmaak en die gewas tydens die eerste helfte van die plantseisoen (voor 20 Oktober) geplant word, word aanbeveel dat **CLINCHER® S GOLD** vlak in die grond ingewerk word. Waar **geeluintjies** nie 'n probleem is nie of waar tydens die tweede helfte van die plantseisoen (na 20 Oktober) geplant word, word die inwerk van **CLINCHER® S GOLD** nie aanbeveel nie.

Omdat breëblaaronkruid onvoldoende beheer word deur **CLINCHER® S GOLD**, word aanbeveel dat 'n geskikte breëblaardoder in kombinasie met **CLINCHER® S GOLD** gebruik word. Die breëblaardoder kan of vooropkom of na-opkom toegedien word. Omdat na-opkombehandelings meer doeltreffende asook meer betroubare beheer van veral diepontiende breëblaaronkruid soos *Datura* spp., *Xanthium* spp., *Tribulus terrestris*, *Commelina benghalensis* en *Cucumis myriocarpus* bied, word na-opkomtoedienings verkies. Die verskillende kombinasies wat gebruik kan word, word in die volgende tabelle uiteengesit.

TABEL 1: Toedieningshoeveelhede van CLINCHER® S GOLD plus GARDOMIL GOLD toegedien vooropkoms in 'n tenkmengsel:

Grondtipe	% Klei	Vooropkoms	
		CLINCHER® S GOLD (L/ha) Plus	GARDOMIL GOLD (L/ha)
Sand	0 - 10	0.4 – 0.65	2.2
Leemsand/Sandleem	11 - 20	0.4 – 0.65	2.5
Sandkleileem	21 - 30	0.5 – 0.7	3.2
Sandkleileem/ Sandklei	31 - 40	0.6 – 0.7	4.0
Sandklei /Turf	41 - 50	0.6 – 0.8	4.8

Om *Cyperus esculentus* te beheer kan **CLINCHER® S GOLD** ingewerk word teen die dosisse soos in Tabel 1 gevolg deur 'n vooropkoms toediening van GARDOMIL GOLD met plant of net daarna.

TABEL 2: Toedieningshoeveelhede van CLINCHER® S GOLD plus GESAPRIM SUPER of GESAPRIM 90 WG toegedien vooropkoms in 'n tenkmengsel:

Grondtipe		% Klei	Vooropkoms		
			CLINCHER® S GOLD (L/ha) plus	of GESAPRIM SUPER (L/ha)	of GESAPRIM 90 WG (kg/ha)
Sand	0 - 10	0.7 – 0.9	1.3 – 1.7	0.9 – 1.1	
Leemsand/ Sandleem	11 - 20	0.7 – 0.9	1.7 – 2.1	0.9 – 1.4	
Sandkleileem	21 - 35	0.9 – 1	2.1 – 2.5	1.4 – 1.7	
Sandkleileem/ Sandklei/Turf	>35	1 – 1.2	2.5 – 3.3	1.7 – 2.2	

Belangrik

Raadpleeg die GESAPRIM SUPER en GESAPRIM 90 WG etikette i.v.m. wisselbou aanbevelings.

Gebruik die hoër dosisse van GESAPRIM SUPER en GESAPRIM 90 WG waar langer nawerking ten opsigte van breëblaaronkruid verlang word, veral die wat laat in die seisoen ontkiem soos **langkakiebos** (*Tagetes minuta*) en **groot stinkblaar** (*Datura ferox*). Waar kakiebos die grootste probleem is word GESAPRIM SUPER verkies en waar groot stinkblaar die grootste probleem is, word GESAPRIM 90 WG verkies.

TABEL 3: Toedieningshoeveelhede van CLINCHER® S GOLD toegedien vooropkoms in 'n tenkmengsel met CALLISTO vir vooropkoms gras en breëblaar beheer:

CLINCHER® S GOLD kan in kombinasie met CALLISTO (L6795) gebruik word vir die vooropkoms beheer van grasse en breëblaaronkruide. Die dosisse van **CLINCHER® S GOLD** wissel van 218 ml/ha tot 710 ml/ha. Wanneer **CLINCHER® S GOLD** saam met CALLISTO gebruik word, is die dosis van **CLINCHER® S GOLD** nie klei sensitief nie maar eerder onkruid spesifiek.

(Die vooropkoms toediening van **CLINCHER® S GOLD** plus CALLISTO moet opgevolg word met geregistreerde dosisse van CALLISTO, GARDOMIL GOLD, METAGAN GOLD, CLINCHER® S of GESAPRIM SUPER ongeveer 5 - 6 weke later soos aangedui op die geregistreerde etikette.)

CALLISTO plus 156 ml/ha	CLINCHER® S GOLD 320 - 710 ml/ha
Botaniese naam	Gewone naam
<i>Acanthospermum hispidum</i>	Regopsterklits
<i>Chenopodium album</i>	Withondebossie
<i>Chenopodium carinatum</i>	Wilde appelliefie
<i>Echinochloa colona</i>	Groen hondebossie

CALLISTO plus 156 ml/ha	CLINCHER® S GOLD 320 - 710 ml/ha
Botaniese naam	Gewone naam
<i>Nicandra physalodes</i>	Basterappelliefie
<i>Physalis angulata</i>	Klewerige appelliefie
<i>Setaria pallida-fusca</i>	Rooiborselgras
<i>Tagetes minuta</i>	Langkakiebos

CALLISTO plus 156 ml/ha	CLINCHER® S GOLD 426 - 710 ml/ha
Botaniese naam	Gewone naam
Bogenoemde onkruid plus	
<i>Eleusine indica</i>	Jongosgras
<i>Panicum schinzii</i>	Soet buffelsgras

CALLISTO plus 208 ml/ha	CLINCHER® S GOLD 426 - 710 ml/ha
Botaniese naam	Gewone naam
Bogenoemde onkruid plus	
<i>Amaranthus hybridus</i>	Gewone misbredie
<i>Brachiaria eruciformis</i>	Litjiesinjalgras
<i>Datura ferox</i>	Grootstinkblaar
<i>Eragrostis curvula</i>	Oulandsgras
<i>Hibiscus trionum</i>	Terblansbossie
<i>Polygonum aviculare</i>	Voëlduisendknoop

CALLISTO plus 208 ml/ha	CLINCHER® S GOLD 568 - 710 ml/ha
Botaniese naam	Gewone naam
Bogenoemde onkruid plus	
<i>Cleome monophylla</i>	Rusperbossie
<i>Commelina benghalensis</i>	Bengaalse wandelende Jood
<i>Digitaria sanguinalis</i>	Kruisvingergras
<i>Hibiscus cannabinus</i>	Wildestokroos
<i>Triumfetta pilosa</i>	Klitse

CALLISTO plus 260 ml/ha	CLINCHER® S GOLD 710 ml/ha
Botaniese naam	Gewone naam
Bogenoemde onkruid plus	
<i>Urochloa panicoides</i>	Beesgras
<i>Xanthium strumarium</i>	Kankerroos
Onderdrukking van:	Onderdrukking van:
<i>Bidens bipinnata</i>	Spaanse knapsekêrel
<i>Bidens pilosa</i>	Gewone knapsekêrel
<i>Citrullus lanatus</i>	Wilde waatlemoen
<i>Cosmos bipinnatus</i>	Kosmos
<i>Crotalaria sphaerocarpa</i>	Mielie-crotalaria
<i>Cyperus esculentus</i>	Geeluintjie
<i>Ipomoea purpurea</i>	Purperwinde
<i>Portulaca oleracea</i>	Porslein
<i>Tribulus terrestris</i>	Dubbeltjie

Raadpleeg die CALLISTO etikette vir gedetailleerde aanbevelings.

Die vooropkoms toediening van CLINCHER® S GOLD gevolg deur 'n na-opkoms toediening van verskillende produkte.

TABEL 4: Toedieningshoeveelhede van CLINCHER® S GOLD toegedien vooropkoms of voorplant ingewerk opgevolg deur GARDOMIL GOLD vroeg na-opkoms:

		Vooropkoms	gevolg deur	na-opkoms
Grondtipe	% Klei	CLINCHER® S GOLD (L/ha)	GARDOMIL GOLD (L/ha)	
Sand	0 – 10	0.5 – 0.65	2.3	
Leemsand/Sandleem	11 – 20	0.5 – 0.65	2.8	
Sandkleileem	21 – 30	0.65 – 0.8	3.2	
Sandkleileem/Sandklei	31 – 40	0.75 – 0.9	3.2 – 4.8	
Sandklei/Turf	41 – 50	0.8 - 1	3.2 – 4.8	

Belangrik

COMPLEMENT SUPER teen 100 ml/ha moet by die na-opkoms bespuiting gevoeg word.

Wisselbou

Die bogenoemde toedieningshoeveelhede van GARDOMIL GOLD soos aanbeveel in Tabelle 1, 2 en 3 kan triasiengevoelige opvolggewasse soos grondbone, droëbone, sojabone, sonneblomme, koring, groente, katoen en tabak beskuldig. Waar hierdie gewasse as opvolggewasse-geplant word, moet die GARDOMIL GOLD toediening nie 2.2 L/ha (Tabel 4) oorskry nie of die GESAPRIM SUPER dosis moet nie 1.7 L/ha oorskry nie (Tabel 5).

In wisselbou situasies mag **CLINCHER® S GOLD** en GARDOMIL GOLD in tenkmengsels toegedien word vooropkoms van die gewas en die onkruid. Indien **CLINCHER® S GOLD** egter ingewerk word voor plant moet die GARDOMIL GOLD vooropkoms van beide die gewas en die onkruid toegedien word, volgens dosisse in tabel 4.

TABEL 5: Toedieningshoeveelhede van CLINCHER® S GOLD plus GARDOMIL GOLD vooropkoms toegedien as 'n tenkmengsel of voorplant ingewerk van CLINCHER® S GOLD opgevolg deur 'n vooropkoms toediening van GARDOMIL GOLD om wisselbou moontlik te maak:

		Vooropkoms	
Grondtipe	% Klei	CLINCHER® S GOLD (L/ha) Plus	GARDOMIL GOLD (L/ha)
Sand/Leemsand/Sandleem	0 - 20	0.5 – 0.65	2.2
Sandkleileem	21 - 30	0.6 – 0.8	2.2

Grondtipe	% Klei	Vooropkoms	
		CLINCHER® S GOLD (L/ha) Plus	GARDOMIL GOLD (L/ha)
Sandkleileem/Sandklei	31 - 40	0.8 – 0.9	2.2
Sandklei/Turf	41 - 50	0.9 – 1.1	2.2

TABEL 6: Toedieningshoeveelhede van CLINCHER® S GOLD toegedien vooropkoms of voor plant ingewerk opgevolg deur 'n vroeg na-opkomstoediening van GESAPRIM SUPER plus 2,4-D amien:

Grondtipe	% Klei	Vooropkoms	gevolg deur	Na-opkoms
		CLINCHER® S GOLD (L/ha) Plus	GESAPRIM SUPER plus 2,4-D amien (480 g ai /L),	
Sand/Leemsand/ Sandleem	0 - 20	0.7 – 0.9	Alle grondtipes: of 1.25 L GESAPRIM SUPER + 0.75 L 2,4-D amien	
Sandkleileem	21 – 30	0.8 – 1.0		
Sandkleileem / Sandklei	31 - 40	0.95 -1.1		
Sandklei /Turf	41 - 50	0.95 – 1.3		
			of 1.7 L GESAPRIM SUPER + 0.5 L 2,4-D amien	

Moet nie COMPLEMENT SUPER (of enige ander benattingsmiddel) by die GESAPRIM SUPER plus 2,4-D amien mengsel voeg nie.

OPMERKINGS TABELLE 1, 2, 3, 4, 5 en 6

Suikermielies

Moet nie GARDOMIL GOLD as 'n opvolg toediening of in kombinasie gebruik met **CLINCHER® S GOLD** op SUIKERMIELIES nie. Gebruik slegs die aanbevelings in Tabel 6.

Onkruid

- *Cyperus esculentus*
 - Gebruik die hoër toedieningshoeveelheid van **CLINCHER® S GOLD** vir verbeterde beheer.
 - Waar EPTC gebruik word om **geeluintjies** (*C. esculentus*) en grasse te beheer kan beter laatseisoen beheer van hierdie onkruid verkry word indien EPTC opgevolg word deur 'n vroeë na-opkomtoediening van 'n **CLINCHER® S GOLD** plus GARDOMIL GOLD tenkmengsel. Gebruik EPTC soos op die etiket aangedui.
- *Digitaria sanguinalis*
 - Gebruik die hoër toedieningshoeveelheid van **CLINCHER® S GOLD** waar hoë infestaties voorkom.
- *Brachiaria eruciformis*
 - Gebruik die hoër toedieningshoeveelheid van **CLINCHER® S GOLD** vir beter beheer.

Toedieningsmetodes - inwerking

Gebruik die hoër toedieningshoeveelheid van **CLINCHER® S GOLD** wanneer dit voor plant ingewerk word.

Grond

Indien die organiese materiaal inhoud van die grond 1 % oorskry, moet die hoër toedieningshoeveelheid van **CLINCHER® S GOLD** gebruik word.

Op gronde wat meer as 30 % klei bevat, mag breëblaaronkruid nie voldoende vooropkom beheer word nie (Tabel 1) en behoort voorkeur aan na-opkombeheer van breëblaaronkruid gegee te word (Tabelle 3 en 4).

Indien die **CLINCHER® S GOLD** plus GARDOMIL GOLD splittoediening geselekteer word op gronde wat meer as 30 % klei bevat, kan die dosis van die GARDOMIL GOLD gevarieer word na aanleiding van die vooropkombeheer wat verkry is en die heersende weerstoestand.

Op gronde met 0 - 10 % klei in die Noordwes Provinsie en Noord-Wes Vrystaat of op kalkryke gronde, kan hierdie lae dosisse van GARDOMIL GOLD (Tabel 5) nogsteeds opvolggewasse beskadig.

Hierdie lae dosisse mag ook swakker breëblaarbeheer en korter nawerking op gronde met meer as 20 % klei tot gevolg hê (Tabel 5). Gevolglik behoort na-opkombeheer van breëblaaronkruid soos aanbeveel in Tabel 4, voorkeur te geniet wanneer wisselbou met gevoelige gewasse onderneem word.

Bymiddels

COMPLEMENT SUPER teen 100 ml/ha moet bygevoeg word waar GARDOMIL GOLD na-opkoms toegedien word.

Werkingswyse

Grasdoders wat aan die chloorasetamied onkruidodergroep behoort (wat **CLINCHER® S GOLD** insluit) word via die koleoptiel van grasonkruid opgeneem. Dus, vir goeie grasbeheer moet hierdie onkruidodders teen letale konsentrasies beskikbaar wees in die boonste ± 50 mm van die grondprofiel. Die adsorpsiekapasiteit van 'n grond vir hierdie onkruidodders, sowel as die hoeveelheid water wat deur die grondprofiel beweeg met reën/besproeiing, bepaal die gevolglike konsentrasie van die onkruidodders in die boonste lae van die grondprofiel. As gevolg van die lae

adsorpsiekapasiteit van sandgronde (0 - 15 % klei, <1 % organiese materiaalinhoud) kan bogenoemde onkruidodders tot subletale konsentrasies in die boonste \pm 50 mm verlaag word na die voorkoms van deurdringende reën (25 mm en meer per dag). Aanhoudende reën (50 mm en meer versprei oor 3 - 7 dae) sal dieselfde gevolg hê. Dit kan dus gebeur dat grasse ontkiem as sulke toestande voorkom. 'n Splittoediening (soos aanbeveel in Tabel 4) word aanbeveel indien **CLINCHER® S GOLD** op sulke gronde gebruik word. Deurdringende en/of aanhoudende reën na die splittoediening kan dieselfde gevolg hê.

Raadpleeg die GARDOMIL GOLD en GESAPRIM SUPER etikette vir verdere besonderhede.

Die gebruik van **CLINCHER® S GOLD** in kombinasie met ander produkte om *Cyperus esculentus* te beheer.

TABEL 7: Toedieningshoeveelhede van **CLINCHER® S GOLD toegedien vroeg na-opkoms in 'n tenkmengsel met GARDOMIL GOLD vroeg na 'n aanvanklike toediening van EPTC:**

Grondtipe	% Klei	Vroeg na-opkoms	
		CLINCHER® S GOLD (L/ha) plus	GARDOMIL GOLD (L/ha)
Sand	0 - 10	0.55	2.2
Leemsand/Sandleem	11 - 20	0.5	2.5
Sandkleileem	21 - 30	0.6	3.2

Belangrik

COMPLEMENT SUPER teen 100 ml/ha moet by hierdie na-opkom spuitmengsel gevoeg word.

Die gebruik van **CLINCHER® S GOLD** in kombinasie met verskillende produkte om die aanvanklike breëblaar beheer te verbeter.

Om die wisselvallige aanvanklike breëblaar beheer van **CLINCHER® S GOLD** te verbeter, kan **CLINCHER® S GOLD** vooropkoms in 'n tenkmengsel met GARDOMIL GOLD gebruik word, gevolg vroeg na-opkoms met GARDOMIL GOLD.

TABEL 8: Toedieningshoeveelhede van **CLINCHER® S GOLD toegedien vooropkoms in 'n tenkmengsel met GARDOMIL GOLD vir meer betroubare aanvanklike breëblaar beheer:**

Grondtipe	% Klei	Vooropkoms		Vroeg na-opkoms
		CLINCHER® S GOLD (L/ha) Plus	GARDOMIL GOLD (L/ha) gevolg deur	GARDOMIL GOLD (L/ha)
Sand/Leemsand/Sandleem	0 - 20	0.65	0.8	2.0

Grondtipe	% Klei	Vooropkoms		Vroeg na-opkoms
		CLINCHER® S GOLD (L/ha) Plus	GARDOMIL GOLD (L/ha) gevolg deur	GARDOMIL GOLD (L/ha)
Sandkleileem	21 - 30	0.75	1	2.2
Sandkleileem/ Sandklei	> 30	0.9	1.2	2.8

Belangrik

COMPLEMENT SUPER teen 100 ml/ha moet by gevoeg word by die spuitmengsel wanneer GARDOMIL GOLD na-opkoms toegedien word.

Die gebruik van **CLINCHER® S GOLD** in ou saadbeddings, minimum bewerkings lande en stoppelbewerkings lande.

Mielies, suikermielies, graansorghum

Waar minimum- of stoppelbewerking toegepas word, mag onkruid ten tye van plant reeds opgekom het. Indien gewasse onder sulke 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 aanbeveel dat TOUCHDOWN Forte HITECH, GRAMOXONE of ADAMA PARAQUAT by **CLINCHER® S GOLD** gevoeg word teen 'n hoeveelheid soos aanbeveel deur die vervaardiger. Die TOUCHDOWN Forte HITECH, GRAMOXONE of ADAMA PARAQUAT sal die bestaande onkruid vernietig en 'n vooropkoms-toestand skep wat **CLINCHER® S GOLD** sal toelaat om doeltreffend te werk.

Waar TOUCHDOWN Forte HITECH, GRAMOXONE of ADAMA PARAQUAT bygevoeg word, moet plaasvind voordat die gewas opkom, aangesien TOUCHDOWN FORTE HITECH, GRAMOXONE of ADAMA PARAQUAT die gewas sal beskadig as dit na-opkoms toegedien word.

By minimum bewerking of stoppelbewerking kan die digtheid van die stoppels en humus die werking van **CLINCHER® S GOLD** beïnvloed. Raadpleeg dus 'n verteenwoordiger van ADAMA Suid-Afrika (pty.) Ltd. of verspreider.

Belangrik

Alle toedieningshoeveelhede hierbo aangegee, geld vir algehele dekbespuiting. In die geval van strookbehandeling op die rye moet die hoeveelheid onkruidodder ooreenkomstig die strookbreedte en ryydte bereken word.

Verseker voldoende bemesting om te verseker dat die gewassaailinge kragtig groei.

GRONDBONE, GROENBONE, DROËBONE, NIERBONE, SONNEBLOMME, SOJABONE EN LUPIENE:

Vooropkoms CLINCHER® S GOLD toedieningshoeveelhede in verskillende breëblaar gewasse.

TABEL 9: Toedieningshoeveelhede van CLINCHER® S GOLD vir die verskillende breëblaar gewasse op verskeie grondtipes en vir die beheer van verskeie onkruid

Grondtipe	% Klei	Vooropkoms
		CLINCHER® S GOLD (L/ha)
Sand/Leemsand/Sandleem	0 - 20	0.6 – 0.8
Sandkleileem	21 - 30	0.8 - 1
Sandkleileem/Sandklei	>30	1 – 1.3

Gebruik die hoër toedieningshoeveelheid van **CLINCHER® S GOLD** vir verbeterde **geeluintjie** (*Cyperus esculentus*) beheer of waar hoë infestasies van **kruisvingergras** (*Digitaria sanguinalis*) voorkom of waar die organiese materiaalinhoud van die grond 1 % oorskry.

Belangrik - alleenlik grondbone

Ten einde goeie beheer van breëblaaronkruid te verkry, kan IGRAN 500 SC by die **CLINCHER® S GOLD** gevoeg word teen hoeveelhede per grondtipe soos aanbeveel op die IGRAN 500 SC etiket.

IGRAN 500 SC word slegs aanbeveel waar oorhoofse sprinkelbesproeiing toegepas word.

Tenkmengsels van CLINCHER® S GOLD met HAMMER 100 SL op verskillende gewasse:

TABEL 10: Toedieningshoeveelhede van CLINCHER® S GOLD in 'n tenkmengsel met HAMMER 100 SL op droëbone vir die beheer van sekere onkruid:

Grondtipe	% Klei	Vooropkoms	
		CLINCHER® S GOLD (L/ha)	HAMMER 100 SL (L/ha)
Sand/Leemsand	0 - 15	0.6	0.3
Sandleem/Sandkleileem	16 - 25	0.6	0.4
Sandkleileem/Sandklei	26 - 35	0.8	0.5
Sandklei/ Turf	>35	NIE AANBEVEEL NIE	

Tenkmengsels van **CLINCHER® S GOLD** met HAMMER 100 SL op grondbone en sojabone.

TABEL 11: Toedieningshoeveelhede van CLINCHER® S GOLD in tenkmengsel met HAMMER 100 SL op grondbone en droëbone vir die beheer van sekere onkruid:

Grondtipe	% Klei	Vooropkoms	
		CLINCHER® S GOLD (L/ha)	HAMMER 100 SL (L/ha)
Sand/Leemsand/Sandleem	0 - 25	0.5 – 0.8	0.4
Sandkleileem/Sandklei	26 - 35	0.8 – 1	0.5
Sandklei/Turf	>35	NIE AANBEVEEL NIE	

Opmerkings (Tabelle 10 en 11)

'n Tenkmengsel van **CLINCHER® S GOLD** plus HAMMER 100 SL mag die gewas beskuldig indien gebruik op 'n grond met 'n pH van meer as 7.

Die beheer van sekere onkruid mag nadeling beïnvloed word onder die volgende omstandighede:

- 'n Swak voorbereide saadbed.
- Gronde met 'n pH (H₂O) van minder as 5.
- Droë toestand direk na toediening of onvoldoende reënval op swaar gronde.
- Raadpleeg die HAMMER 100 SL etiket vir volle besonderhede.

Tenkmengsels van **CLINCHER® S GOLD** en SENCOR 480 SC op sojabone

Die volgende toedieningshoeveelhede as tenkmengsels van **CLINCHER® S GOLD** plus SENCOR 480 SC word aanbeveel op sojabone op verskeie grondtipes en vir die beheer van onkruid soos op die SENCOR 480 SC etiket aangedui, addisioneel tot dié wat deur **CLINCHER® S GOLD** beheer word.

TABEL 12 : Toedieningshoeveelhede van CLINCHER® S GOLD in 'n tenkmengsel met SENCOR 480 SC op sojabone:

Grondtipe	% Klei	Vooropkoms	
		CLINCHER® S GOLD (ℓ/ha)	SENCOR 480 SC (ℓ/ha)
Sand	0 - 10	NIE AANBEVEEL NIE	
Leemsand/Sandleem	11 - 20	0.6 – 0.8	0.54
Sandkleileem	21 - 35	0.8 - 1	0.70
Sandkleileem/Sandklei/Turf	>35	NIE AANBEVEEL NIE	

Opmerkings (Tabel 12)

- Gebruik die hoër toedieningshoeveelheid **CLINCHER® S GOLD** vir verbeterde beheer van *Cyperus esculentus* (**geeluintjie**).
- Gebruik die **CLINCHER® S GOLD** plus SENCOR 480 SC mengsel slegs op gronde met meer as 1 % organiese materiaal.
- Sien SENCOR 480 SC etiket vir kutivarbeperkings.
- Moet nie **CLINCHER® S GOLD** plus SENCOR 480 SC op sojabone toedien wat geplant is op grond met uitsonderlike lae of hoë pH (H₂O) waardes (laer as 4,5 en hoër as 7), gronde met voedingstekorte of gronde wat onderhewig kan wees aan versuip-toestande nie, aangesien dit beskadiging tot gevolg kan hê.
- Die toediening van **CLINCHER® S GOLD** plus SENCOR 480 SC op ligte gronde vroeg in die seisoen onder toestande van lae nagtemperatuur, mag skade veroorsaak.
- Oormatige toediening, toediening tydens die verkeerde groeistadium of enige ander gebruik wat nie in ooreenstemming met die **CLINCHER® S GOLD** en SENCOR 480 SC etiket is nie, kan die groei van die gewas belemmer of ander nadelige gevolge hê.
- Raadpleeg die SENCOR 480 SC etiket vir volledige besonderhede.

AARTAPPELS (SOMERREËNVALGEBIED ALLEENLIK)

Gebruik 1.3 L/ha **CLINCHER® S GOLD** op alle grondsoorte. Om goeie beheer van breëblaaronkruid te verkry, kan SENCOR 480 SC teen 1.1 L/ha by die **CLINCHER® S GOLD** gevoeg word. Wanneer dit in kombinasie met SENCOR 480 SC gebruik word en waar aartappels gedurende die reënseisoen of onder besproeiing geplant word, kan die hoeveelheid **CLINCHER® S GOLD** tot 1.0 L/ha verminder word. Waar aartappels egter onder droëlandtoestande geplant word voor, die aanvang van die reënseisoen, moet die hoër hoeveelheid **CLINCHER® S GOLD** toegedien word selfs in kombinasie met SENCOR 480 SC gebruik word.

Die beperkings ten opsigte van SENCOR 480 SC soos op die etiket aangegee, moet nagekom word.

Operd

Nadat die onkruid-doder toegedien is, moet operdbewerkings so lank as moontlik uitgestel word, aangesien sodanige bewerkings onbehandelde grond na die oppervlak sal bring wat nuwe onkruidgroei tot gevolg mag hê. **CLINCHER® S GOLD** kan ook na-opkom van die aartappels en nadat opgeërd is, toegedien word. Onder hierdie omstandighede is word'n gerigte bespuiting verkies, maar is nie noodsaaklik nie.

KATOEN

Gebruik 0.5 – 0.6 L/ha **CLINCHER® S GOLD** slegs in tenkmengsel met **COTOGARD 500 SC**. Teen hierdie lae gebruiksterkte van **CLINCHER® S GOLD** sal *Cyperus esculentus* en *Panicum maximum* nie goed beheer word nie. Volledige aanbevelings verskyn op die COTOGARD 500 SC etiket.

Belangrik

Waar **CLINCHER® S GOLD** op onbedekte katoensaad gespuit word, mag skade voorkom. Gevolglik moet verseker word dat die katoensaad deeglik deur grond bedek is.

GRAANSORGHUM / VOERSORGHUM

CLINCHER® S GOLD kan in graansorghum en voersorghum gebruik word **mits die sorghumsaad vooraf deeglik volgens voorskrif met CONCEP 960 EC behandel is.** Die volgende toedieningshoeveelhede word aanbeveel vir die beheer van eenjarige grasse en gedeeltelike beheer van *Cyperus esculentus*.

CLINCHER® S GOLD kan net op voersorghum gebruik word wat *sorghum x sorghum* kruisings en *sorghum x sudan* gras kruisings is. Kruisings met *Pennisetum* spp en kruisings wat die BMR gene bevat mag nie met **CLINCHER® S GOLD** gespuit word nie. CONCEP® 960 EC saadbehandeling word slegs aanbeveel vir die gebruik saam met **CLINCHER® S GOLD**, METAGAN GOLD of CLINCHER® S.

TABEL 13: Toedieningshoeveelhede van CLINCHER® S GOLD wanneer dit toegedien word op CONCEP 960 EC behandelde saad (raadpleeg die CONCEP etiket vir volledige aanbevelings):

Grondtipe	% Klei	Vooropkoms
		CLINCHER® S GOLD (L/ha)
Sand/Leemsand/Sandleem	0 - 20	NIE AANBEVEEL NIE
Sandkleileem	21- 30	0.8
Sandklei	31 - 40	0.95
Turf	>40	0.95 – 1.3

Belangrik

Op turfgronde mag 1.3 L/ha **CLINCHER® S GOLD** nodig wees vir goeie beheer van *Brachiaria eruciformis*. Dit mag ook die beheer van *Cyperus esculentus* verbeter.

Gebruik die hoër toedieningshoeveelhede van **CLINCHER® S GOLD** waar hoë infestaties van *Digitaria sanguinalis* (kruisvingergras) voorkom.

Indien graansorghum en voersorghumsaad nie vooraf deeglik met CONCEP 960 EC behandel is nie, kan **CLINCHER® S GOLD** ernstige skade aan die gewas veroorsaak.

CLINCHER® S GOLD kan graansorghum en voersorghum tydelik beskadig indien baie nat grondtoestande 4 - 6 weke na plant voorkom. Die gewas sal gewoonlik hierdie beskadiging ontgroeï en sal dit geen effek op opbrengs hê nie.

Indien 'n grondkors vorm, moet dit onmiddellik opgebreek word deur 'n vlak bewerking.

Beheer van breëblaaronkruid op graansorghum alleenlik

'n Tenkmengsel van **CLINCHER® S GOLD** plus SORGOMIL GOLD 600 SC teen 0.5 L/ha + 2.9 L/ha kan ook gebruik word vir vooropkoms onkruidbeheer in graansorghum op gronde wat 21 - 30 % klei bevat en teen 0.6 L + 3.6 L/ha onderskeidelik op gronde wat 31 - 35 % klei bevat. (Raadpleeg die SORGOMIL GOLD 600 SC etiket.)

Op alle grondtipes kan 'n vooropkomsbehandeling met **CLINCHER® S GOLD** vir grasbeheer opgevolg word met 'n vroeë na-opkomsbehandeling met GESAPRIM SUPER + 2,4-D amien om die breëblaaronkruid te beheer (raadpleeg die GESAPRIM SUPER etiket).

Alternatiewelik kan 'n vooropkomsbehandeling van **CLINCHER® S GOLD** ook opgevolg word deur 'n vroeë na-opkoms opvolgbehandeling met **SORGOMIL GOLD 600 SC**. **SORGOMIL GOLD 600 SC** word slegs aanbeveel vanaf die 5-blaarstadium van die graansorghum.

Die **SORGOMIL GOLD 600 SC** toediening hoeveelhede mag nie 2 L/ha oorskry waar wisselbou toegepas word nie. Raadpleeg die **SORGOMIL GOLD 600 SC** etiket in hierdie verband. Die volgende toedieningshoeveelhede moet toegepas word:

TABEL 14: Toedieningshoeveelhede van CLINCHER® S GOLD opgevolg met SORGOMIL GOLD 600 SC om breëblaar onkruidbeheer op graansorghum te verbeter:

		Voor-opkoms	gevolg deur	Na-opkoms
Grondtipe	% Klei	CLINCHER® S GOLD (L/ha)	SORGOMIL GOLD 600 SC (L/ha)	
Sand/Leemsand	0 - 15	NIE AANBEVEEL NIE		
Sandleem	16 - 20	0.5	2.6	
Sandkleileem	21 - 30	0.6	3.0	
Swaarder gronde insluitend Turf	>30	0.7 - 1	3.0	

Belangrik

Die benattingsmiddel **COMPLEMENT SUPER** moet by alle na-opkomsbehandelings gevoeg word, behalwe waar **GESAPRIM SUPER + 2,4-D** amien gebruik word.

Op turfgronde kan 1 L/ha **CLINCHER® S GOLD** nodig wees vir goeie beheer van *Brachiaria eruciformis* en *Digitaria sanguinalis*. Dit kan ook gebruik word om die beheer van *Cyperus esculentus* te verbeter.

TABAK (SLEGS SOMERREËNVALSTREEK)

Dien **CLINCHER® S GOLD** toe as 'n vol oppervlaktebespuiting binne 3 dae na uitplant van die tabak terwyl die plantjies nog verlep is. Waar **CLINCHER® S** op nie-verlepte tabakplantjies toegedien word moet die bespuiting so gerig word dat dit nie die plantkelk binnedring, waar dit die groeipunt kan beskadig nie. Die blare van aktiefgroeiende tabak kan brandskade opdoen waar dit met **CLINCHER® S GOLD** gespuit word. Op ligte gronde (0 - 10 % klei) moet **CLINCHER® S GOLD** net tussen die plantrye toegedien word op so 'n manier dat 'n onbehandelde strook van ongeveer 20 - 25 cm wyd, bo-op die walle gelaat word (d.i., 10 cm aan weerskante van die plantry).

Enige bestaande onkruid moet verwyder word voor **CLINCHER® S GOLD** toegedien word. Dit kan met die hand of meganies of deur toediening van **GRAMOXONE** of **ADAMA PARAQUAT** geskied onmiddellik voor uitplant. Enige groeiende onkruid teenwoordig ten tye van die **CLINCHER® S GOLD** toediening sal nie beheer word nie. Waar tabak op walle geplant word, moet van 110° spuitpunte gebruik gemaak word wat vanaf 'n posisie bokant die holvoor spuit. Dit sal meer egalige verspreiding van die onkruiddoder tot gevolg hê.

Binne 2 - 3 dae na 'n **CLINCHER® S GOLD** bespuiting, moet sprinkelbesproeiing van minstens 10 mm, maar nie meer as 15 mm op grond met minder as 35 % klei en ten minste 20 mm maar nie

meer as 30 mm op grond met meer as 35 % klei toegedien word ten einde die **CLINCHER® S GOLD** te aktiveer.

Slegs sterkgroeïende, gesonde plante moet uitgeplant word. Indien van die wortels van 'n uitgeplante tabakplant blootgestel word aan **CLINCHER® S GOLD** tydens toediening, sal die plant nadelig beïnvloed word. Dit is dus belangrik dat uitplant sorgvuldig geskied.

TABEL 15: Toediengingshoeveelhede van CLINCHER® S GOLD op tabak:

Grondtipe	% Klei	Vooropkoms
		CLINCHER® S GOLD (L/ha)
Sand	0 - 10	0.5
Leemsand/Sandleem	11 - 20	0.7
Sandkleileem	21 - 35	1
Sandklei	>35	1.4

CALLISTO®, **COMPLEMENT®**, **GARDOMIL®**, **GRAMOXONE®**, **GESAPRIM®**, **CONCEP®**, **IGRAN®**, **SORGOMIL®**, **TOUCHDOWN®** = Geregistreerde Handelsmerke van 'n Syngenta Groep Maatskappy.

COTOGARD® = Geregistreerde Handelsmerk van ADAMA Suid-Afrika (Pty.) Ltd.

SENCOR® 480 SC = Geregistreerde Handelsmerk van Bayer SA (Edms) Beperk.

HAMMER® = Geregistreerde Handelsmerk van BASF.