

GROUNDNUTS, DRY BEANS, SOYBEANS AND MAIZE GUIDE

EDITION 2



CONTENT

Accent[®]

HERBICIDE

8 **Gallant[™] SUPER**

HERBICIDE

22

Broadstrike[™] 800 WG

HERBICIDE

12 **Strongarm[™] 840 WG**

HERBICIDE

28

Classic[®]

HERBICIDE

18 **SureStart[™]**

HERBICIDE

34

Oncol[™] SUPER 220 EC

INSECTICIDE

40 **Acanto[®] PLUS 280 SC**

FUNGICIDE

48

Uphold[™] 360 SC

INSECTICIDE

44 **Hit[™] 500 SC**

FUNGICIDE

52



Accent®

HERBICIDE

Accent®
HERBICIDE



750 g/Kg Nicosulfuron (sulfonylurea)

A water dispersible granule, selective post-emergence grass and broadleaf herbicide, which controls existing wild sorghum types, Johnson grass and some grass and broadleaf weeds in maize.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Accent® contains nicosulfuron (Caution) • Reg. No. L5157 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Accent® is classified under HRAC Group B. It controls weeds by inhibition of acetolactate synthase ALS (*acetohydroxyacid synthase AHAS*), an enzyme in the biosynthetic pathway of the amino acids, leucine, isoleucine and valine.



GETTING THE BEST FROM ACCENT®

EARLY POST EMERGENCE APPLICATION

(Only for cultivars listed on the label):

Apply post-emergence over the top when the maize is in the 2-5 leaf stage. Use only on the maize hybrids listed on the label.

Spray when the weeds have emerged and are actively growing but do not exceed the maximum stage recommended on the label.

WARNING: Accent® will cause severe crop damage when used before, after, or in tank mixture with organophosphorous insecticides. This also applies to in furrow organophosphorous insecticides applied at planting.

LATE POST EMERGENCE APPLICATION:

Apply as a directed spray only when the maize is in the 7-10 leaf stage.

Apply by means of drop arms so as to avoid spraying directly into maize funnel. Ensure that the target weeds are adequately covered by the spray mixture.

Spray when the weeds have emerged and are actively growing but do not exceed the maximum stage recommended on the label.

GENERAL: Re-growth of sorghum species may occur when the maize crop is cultivated within 10 days before or after the application of Accent®.



KEY ATTRIBUTES

- 1 **Accent®** controls wild sorghum types, Johnson grass, Rottboellia, and some annual grass and broadleaf weeds in maize.



PRECAUTIONS

- May injure crops that are stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, or cultural practices. In addition, different varieties of the crop may be sensitive to treatment. Treatment of such varieties may injure crops.
- In warm, moist conditions, the expression of herbicide symptoms is accelerated in weeds; in cold, dry conditions, expression of herbicide symptoms is delayed. In addition, weeds hardened off by drought stress are less susceptible.
- Environmental conditions promoting rapid herbicide uptake and/or poor crop growing conditions may result in diminished crop safety. In addition, there may be difference in crop selectivity among certain families of inbred maize genetics resulting in varietal response in some commercial hybrids containing flint or tropical germplasm.



COMPATIBILITY

Do not apply **Accent®** in combination with organophosphorous insecticides, e.g. monocrotophos, triazophos or within 14 days of such application.

Do not use **Accent®** following in-furrow applications of organophosphate granular insecticides, e.g. terbufos and phorate.

The restrictions under the above two points do not apply to carbamate type insecticides. For further Information, consult a technical advisor.

Accent® is compatible with Atrazine 500 SC (Reg. No. L498 Act No. 36 of 1947).



RESISTANCE MANAGEMENT

- 1 For resistance management **Accent®** is a group code B herbicide. Any weed population may contain individuals naturally resistant to **Accent®** and other group code B herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. **Accent®** or any other group code B herbicide may not control these resistant weeds.
- 2 Avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate with registered products from different herbicide group codes.
- 3 Integrate other control methods (chemical, cultural, biological) into weed control programmes



USE RESTRICTIONS

Where certain climatic conditions (such as lengthy wet, cold period) prevail soon after application, the use of **Accent®** can lead to temporary yellowing or stunting of the crop.

FOLLOW-UP CROPS:

The amount of **Accent®** which remains in the soil is dependent on the rate used, soil pH, organic matter content, time elapsed as well as climatic and weather conditions since **Accent®** application.

Accent® has a limited residual effect on germinating weeds, the control of which is affected by factors such as weed species, soil pH and soil moisture.

Under no circumstances should unused spray mixture be kept overnight.

Do not spray **Accent®** on maize which is growing under stress conditions (stress conditions can result from water logging, drought, disease, insect damage and mineral element deficiencies, especially nitrogen).

DILUTION WATER:

Use only water of which the quality is suitable for overhead irrigation.



Broadstrike™ 800 WG

HERBICIDE

Broadstrike™ 800 WG

HERBICIDE



800 g/Kg Flumetsulam

A water dispersible granule herbicide for pre-emergence control of annual grasses, broadleaf weeds and also post-emergence control of broadleaf weeds in a range of crops including maize, soybeans, groundnuts, lucerne and other crops.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Broadstrike™ 800 WG contains flumetsulam (Caution) • Reg. No. L6180 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Broadstrike™ 800 WG is part of the triazolopyrimidine sulfonanilide group of herbicides that has the ALS (Acetolactate synthase) inhibition method of action. HRAC classification is Group Code B. Other Group Code B herbicides are Pallas™ 45 OD, Derby™ 175 SC, Tarzec™ 320 WG, Quelex™ 200 WG, Strongarm™ 840 WG and all sulfonylureas (SUs) herbicides.



GETTING THE BEST FROM BROADSTRIKE™ 800 WG

Performs best when the weeds are in the seedling stage (2-4 leaf).

Warm conditions greatly improve the activity of **Broadstrike™ 800 WG**

Application of **Broadstrike™ 800 WG** with an adjuvant improves uptake and transport within the target plant resulting in higher levels of weed control.

Do not spray **Broadstrike™ 800 WG** mixtures if rainfall is expected within 6 hours after application.



KEY ATTRIBUTES

- 1 Excellent control of a wide spectrum of broadleaf weeds.
- 2 Controls problematic broadleaf weeds such as *Tagetes minuta* and *Tribulus terrestris*.
- 3 Good crop safety.
- 4 Short waiting periods for follow up crops.
- 5 Low dose, low environmental impact.
- 6 Slow breakdown, long lasting action.
- 7 Highly compatible with a wide range of herbicides and insecticides.
- 8 User friendly packaging.



COMPATIBILITY

The compatibility of **Broadstrike™ 800 WG** in tank mixtures with recommended products may be influenced by the formulation of the products. The quality of the water may also have an effect on the tank mixtures. Since the formulation of recommended products may change without the knowledge of Corteva Agriscience™ and the quality of water may vary from farm to farm, a physical compatibility test should always be carried out prior to application. Corteva Agriscience™ does not accept any responsibility for the crop tolerance of the tank mixtures where the formulation of products has changed or for mixtures with products not listed on the label.

Broadstrike™ 800 WG is compatible with Mamba™ DMA 480 SL (glyphosate) and may be used in tank-mixture for post-emergence application strictly only on glyphosate tolerant maize cultivars.

Do not mix with organophosphate insecticides.

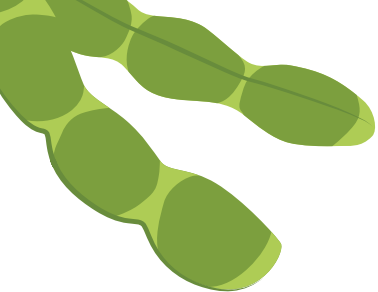
Do not use a tank-mixture of **Broadstrike™ 800 WG** with Gallant™ SUPER herbicide (or any other Group A herbicide) as such a mixture is antagonistic and poor control of annual grasses is likely to occur.



RECROPPING INTERVAL AND CROP ROTATION GUIDELINES

TREATMENT OF BROADSTRIKE™ 800 WG OR TANK-MIXTURE OF COMPLEMENTARY PRODUCT/S + BROADSTRIKE™ 800 WG	APPLICATION TIMING*	FOLLOW-UP CROP							
		SOYBEANS	GROUNDNUTS	DRY BEANS	GRAIN SORGHUM	MAIZE	POTATOES	SUNFLOWER	WHEAT
		RECROPPING INTERVAL (MONTHS)							
BROADSTRIKE™ 800 WG ALONE ON CLOVERS, LUCERNE OR MEDICS	POST	0	0	0	3	3	3	5	3
(ALACHLOR 384 EC + BROADSTRIKE™ 800 WG)	PRE	0	0	3	3	3	3	5	3
(ALACHLOR 480 CS + BROADSTRIKE™ 800 WG)	PRE	0	0	3	3	3	3	5	3
RELAY™ SUPER 900 EC + BROADSTRIKE™ 800 WG	PRE	3	0	3	3	3	3	5	3
(METOLACHLOR 915 EC + BROADSTRIKE™ 800 WG)	PRE	0	0	0	3	3**	3	5	3
(S-METOLACHLOR 915 EC + BROADSTRIKE™ 800 WG)	PRE	0	0	0	3	3**	3	5	3
(METOLACHLOR 960 EC + BROADSTRIKE™ 800 WG)	PRE	0	0	0	3	3	3	5	3
(S-METOLACHLOR 960 EC + BROADSTRIKE™ 800 WG)	PRE	0	0	0	3	3	3	5	3
(2,4-D AMINE 480 SL + BROADSTRIKE™ 800 WG)	POST	3	3	3	3	3	3	5	3
(2,4-D AMINE 480 SL + RELAY SUPER 900 EC + BROADSTRIKE™ 800 WG)	POST	3	3	3	3	3	3	5	3
(ATRAZINE 500 SC + BROADSTRIKE™ 800 WG)	POST	9	9	9	9	3	9	9	9
(BROMOXNYL 225 EC + BROADSTRIKE™ 800 WG)	POST	0	0	0	3	3	3	5	3
(REFLEX SC + BROADSTRIKE™ 800 WG)	POST	9	9	9	9	3	9	9	9
(SUPRAZINE 600 SC + BROADSTRIKE™ 800 WG)	POST	9	9	9	9	3	9	9	9
(SUPRAZINE 600 SC + BROADSTRIKE™ 800 WG)	POST	9	9	9	9	3	9	9	9
2,4-D AMINE 480 SL + BROADSTRIKE™ 800 WG	POST	9	9	9	9	3	9	9	9
(SUPRAZINE 600 SC + RELAY™ SUPER 900 EC + BROADSTRIKE™ 800 WG)	POST	9	9	9	9	3	9	9	9

* "PRE" denotes application pre-emergence to the crop | ** "POST" denotes application post-emergence to the crop | ** These recropping intervals of 3 months will be zero months in situations where the soil type and magisterial district do not restrict pre-emergence application of Broadstrike™ 800 WG to maize. – Check with Broadstrike Label



RESISTANCE MANAGEMENT

- 1** For resistance management, **Broadstrike™ 800 WG** is an HRAC group code B herbicide. Any weed population may contain individuals naturally resistant to **Broadstrike™ 800 WG** and other group code B herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **Broadstrike™ 800 WG** or any other group code B herbicide.
- 2** Avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or tank mix with registered products from different herbicide group codes.
- 3** Integrate other control methods (chemical, cultural, biological) into weed control programmes.
- 4** Monitor each land on a seasonal basis to identify the development of resistance early.



PRECAUTIONS

- Leave 28 days between application and harvest or grazing by livestock.
- Do not spray if rain is expected within 4 hours.
- Avoid conditions that place the crop under stress e.g. very cold, wet or dry conditions.
- Avoid poorly drained soil.
- Soil pH of <5 and >7 may cause poor control.
- Poor control may be experienced in soils with organic content of >3%.

THIS DOCUMENT DOES NOT REPLACE THE LABEL OF THE PRODUCT, SEE LABEL FOR COMPLETE INFORMATION





Classic®

HERBICIDE

Classic®
HERBICIDE



250 g/Kg Chlorimuron ethyl (sulfonylurea)

A water dispersible granular herbicide for post emergent control of existing broadleaf weeds and sedges in soybeans.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Classic® contains chlorimuron ethyl (Caution) • Reg. No. L4164 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Classic® is in HRAC Group B and controls weeds by inhibition of acetolactate synthase ALS (acetohydroxyacid synthase AHAS), an enzyme in the biosynthetic pathway of the amino acids, leucine, isoleucine and valine. The weeds die due to starvation and normally take 3–14 days to die. Symptoms of uptake include immediate growth cessation, chlorosis and turning purple.



GETTING THE BEST FROM CLASSIC®

Post emergence applications should include either a nonionic surfactant or a crop oil concentrate.

Applications to soils with pH above 7.0 must be monitored for rate-dependent carryover to sensitive crops such as sugarbeets and root vegetable crops.

Applications on soybeans should be made by ground or air to young actively growing weeds.

Active growth of weeds is of critical importance for effective activity of **Classic®**.

Application of **Classic®** must include a surfactant such as ARMOBLEN 650 (Reg. No. L4159 Act No. 36 of 1947) at a concentration of 0,1–0,2% (100–200ml per 100 l spray solution).



USE RESTRICTIONS



KEY ATTRIBUTES

- 1 Controls or suppresses weeds by post-emergence activity via foliar and root uptake into target plants. It demonstrates strong rate-dependent residual activity in the soil.
- 2 In warm, moist conditions, the expression of herbicide symptoms is accelerated in weeds; in cold, dry conditions, expression of herbicide symptoms is delayed.
- 3 Provides control of yellow nutsedge, a common weed in soybean fields in South Africa.



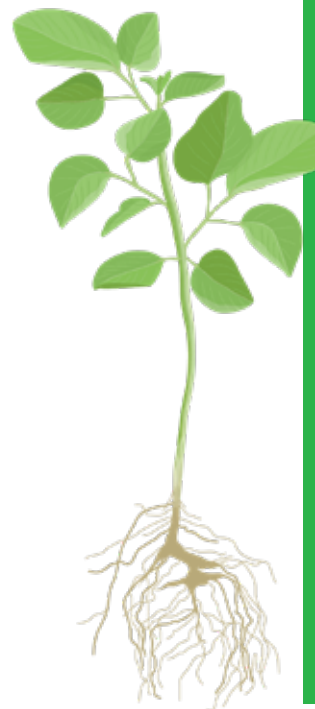
COMPATIBILITY

The compatibility of **Classic**® with products other than specified on this label has not yet been determined and is therefore not recommended.



RESISTANCE MANAGEMENT

- 1 When herbicides with the same mode of action are used in the same land for several consecutive years, it is possible that a selection of naturally occurring resistant weed species may take place. These will propagate and become dominant. A weed species is resistant to a herbicide if it survives a treatment correctly carried out at the recommended dose and application timing.
- 2 If a weed species is resistant to one sulfonylurea product it can be expected that it will be resistant to all sulfonylurea herbicides.
- 3 Development of resistance can be avoided by alternating with product having a different mode of action or by using a tank mixture of the two products.



FOLLOW-UP CROPS:

Treated areas may be planted to soybeans at any time after **Classic**® application.

Treated areas may not be planted to wheat within 3 months of **Classic**® application.

All other crops may not be planted within 9 months of **Classic**® application.

Longer residual activity in respect of very sensitive follow-up crops may result from:

- **Classic**® applied to soils with a pH exceeding 7.0 (water) and/or soils containing free lime.
- More than one **Classic**® application per season.

The efficacy of **Classic**® may be affected by soil factors which influence activity of weed growth such as pH, soil moisture and soil temperature.

The efficacy of **Classic**® will be adversely affected if cool, dry conditions prevail after spraying.

Prepare only sufficient spray mixture for immediate use. **UNDER NO CIRCUMSTANCES SHOULD UNUSED SPRAY MIXTURE BE KEPT OVERNIGHT.**

Do not apply **Classic**® if rain is expected within 1 hour.

Do not apply **Classic**® before third soybean trifoliolate opens or later than 60 days before soybean maturity.

Temporary leaf yellowing and/or leaf crinkling of soybeans may occur following application of **Classic**®. These effects will generally be most evident 5-7 days after application to soybeans under stress. Under favourable soybean growing conditions, the crop will quickly recover, and yield will not be affected.

Do not apply **Classic**® to plants under stress from abnormal weather (hot or cold) or growing conditions; drought, water saturated soil, disease, insect or prior herbicide injury, as crop injury or poor weed control may result. Severe stress, drought, disease, insect damage or nutrient deficiency following application may also result in crop injury. Delay application until stress passes and weeds and soybeans resume growth.

Do not tank mix **Classic**® with organophosphate insecticides.

Do not apply **Classic**® more than twice in a growing season to the same soybean crop.



Gallant™ SUPER

HERBICIDE

Gallant™ SUPER
HERBICIDE



108 g/ℓ Haloxyfop-R Methyl Ester

Gallant™ SUPER is a selective systemic post-emergent emulsifiable concentrate herbicide for the control of annual and perennial grasses in broadleaf crops as well as a sugarcane ripener.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Gallant™ SUPER contains Haloxyfop-R Methyl Ester (Caution) • Reg. No. L4962 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Gallant™ SUPER is a member of the pyridinyl-oxyphenoxy group of herbicides and has the acetyl-coenzyme A (acetyl-CoA) carboxylase mode of action. HRAC classification is Group Code A.



GETTING THE BEST FROM GALLANT™ SUPER

For best results, apply in water with a pH of 4.5-5.5. Water with a higher or lower pH, must be buffered to 4.5-5.5.

Use a 200-300 ℓ spray mixture per Ha.

The crop may be treated at any time when the weeds are in the correct stage, providing that the withholding periods are adhered to.

If the crop shields the weeds drop-arms must be used to ensure adequate coverage of the weeds or else poor weed control may possibly be obtained.

Weeds which have not germinated at the time of application will not be controlled.

Grass weeds must be actively growing and not under drought stress during application as this can limit uptake and translocation.

Apply when grasses are actively growing, when annual grasses are in the 2-6 leaf stage, and when perennial grasses are in early bloom stage.

Rain within one hour of application may require a follow-up treatment.

Cell division and growth will be stopped within hours of application, but visual symptoms may take 2-3 weeks before visually noticeable.



KEY ATTRIBUTES

- 1 Excellent control of a variety of annual and perennial grasses at lower rates per Ha when compared to other products – less stock needs to be kept on hand.
- 2 Very low toxicity to honeybees.
- 3 Non-toxic to earthworms and soil microorganisms.



COMPATIBILITY

The compatibility of **Gallant™ SUPER** in tank mixtures with recommended products may be influenced by the formulation of the products. The quality of the water may also have an effect on the tank mixtures. Since the formulation of recommended products may change without the knowledge of Corteva Agriscience™ and the quality of water may vary from farm to farm, a physical compatibility test should always be carried out prior to application. Corteva Agriscience™ does not accept any responsibility for the crop tolerance of the tank mixtures where the formulation of products has changed or for mixtures with products not listed on the label.

Gallant™ SUPER may be tank-mixed with the glyphosate products such as MAMBA™ DMA 480 SL. The warnings, precautions, use restrictions and directions for use on the labels of MAMBA™ DMA 480 SL must be fully adhered to.

The compatibility of **Gallant™ SUPER** with other herbicides than those indicated as being compatible is either not known or can have an adverse effect on efficacy. Where two herbicides have to be applied, they should be applied separately with at least a 14 day interval.



RESISTANCE MANAGEMENT

- 1 **Gallant™ SUPER** is a member of the pyridinyl-oxyphenoxy group of herbicides and has the acetyl-coenzyme A (acetyl-CoA) carboxylase mode of action.
- 2 Some naturally occurring weed biotypes resistant to **Gallant™ SUPER** herbicide and other herbicides that inhibit acetyl CoA carboxylase herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by **Gallant™ SUPER** herbicide or other inhibitors of acetyl CoA carboxylase.
- 3 Integrate tillage, crop rotation or mechanical control methods (including non-selective herbicides) during the fallow period into weed control programmes whenever practical.
- 4 Avoid repeated use of herbicides from the same mode of action group. Plan crop rotations to allow use of herbicides from different mode of action groups.
- 5 Maintain herbicide use records for each field.
- 6 Prevent movement of resistant weed seeds and vegetative material to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- 7 When grazing, begin with lands with the least weed resistance before moving to lands with high resistance due to the possibility of animals spreading the seed.
- 8 Inspect all lands annually to identify the development of resistance early.





RECROPPING INTERVAL AND CROP ROTATION GUIDELINES

Maize, sorghum, wheat or any other grass crop should not be planted on treated soil for a period of three months after application of **Gallant™ SUPER**.

Minimum number of days between last application and harvest or grazing:

	Dry beans/Soya beans	60 days
	Lucerne/Medic pastures/Sugarcane	28 days
	All other crops	40 days



PRECAUTIONS

- Do not apply with other herbicides, other than glyphosate such as Mamba™ DMA 480 SL. If another herbicide is to be used, allow 14 days between applications.
- Do not apply in very hard water (> 1000 ppm dissolved solutes) and water with high pH value.
- Do not apply Gallant™ SUPER in nurseries nor to or over nursery plant material.



GALLANT™ SUPER MAY BE USED ON THE FOLLOWING CROPS:



CANOLA



FORESTRY
Eucalyptus, pines,
wattle



LUCERNE/MEDICS



SERADELLA



COTTON



GAPES



LUPINS
Sweet & bitter



SOYBEANS



DECIDUOUS FRUIT
Apples, apricots,
nectarines, peaches,
pears & plums



GROUNDNUTS



ORANGES



SUNFLOWER



DRY BEANS



HOPS



PINEAPPLES



TOBACCO



VEGETABLES
Beetroot, carrots, green beans, onions,
peas, potatoes, tomatoes



Strongarm™ 840 WG

HERBICIDE

Strongarm™ 840 WG

HERBICIDE



840 g/Kg Diclosulam
(triazolopyrimidine sulfonanilide)

A water dispersible granule herbicide for use only in tank mixture for pre-emergence control of annual grasses, broadleaf weeds and under certain conditions, also yellow nutsedge in crops as indicated on the label.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Strongarm™ 840 WG contains diclosulam (Caution) • Reg. No. L8663 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Strongarm™ 840 WG is a member of the triazolopyrimidine sulfonanilide chemistry. The active ingredient diclosulam acts by inactivating the ALS enzyme inhibiting the production of amino acids and protein synthesis essential for plant growth.

It is systemic and absorbed by foliage, stems and roots accumulating in meristematic tissue where growth is inhibited.



GETTING THE BEST FROM STRONGARM™ 840 WG

Strongarm™ 840 WG must be used as a tank mix, in combination with complementary product/s as recommended.

Strongarm™ 840 WG in combination with Relay™ SUPER 900 EC or Alachlor™ 384 EC or Alachlor™ 480 SC or Metagan Gold™ should be applied before the emergence of the crop, as recommended.

When tank mixtures of **Strongarm™ 840 WG** and other herbicides are made, the warnings, precautions, usage restrictions and directions for use as specified on the relevant labels must be followed carefully.



KEY ATTRIBUTES

- 1 Very effective and selective pre-emergence herbicide for use in groundnuts and soybeans.
- 2 Control a variety of grass and broadleaf weeds.
- 3 Good tool to control problematic weeds such as dubbeltjie in groundnuts and morning glory in soybeans.
- 4 Can be soil-applied (surface, pre-plant, or pre-emergence) to meet the needs of the no-till, minimum-till, and conventional tillage farmer.
- 5 Highly effective with a long residual action.
- 6 Suitable for crop rotation practices.
- 7 Low use rates.
- 8 No herbicide residue at harvest.
- 9 Can be tank mixed with other herbicides recommended on the label.



COMPATIBILITY

The compatibility of **Strongarm™ 840 WG** in tank mixtures with recommended products may be influenced by the formulation of the products. The quality of the water may also have an effect on the tank mixtures. Since the formulation of recommended products may change without the knowledge of Corteva Agriscience and the quality of water may vary from farm to farm, a physical compatibility test should always be carried out prior to application. Corteva Agriscience™ does not accept any responsibility for the crop tolerance of the tank mixtures where the formulation of products has changed or for mixtures with products not listed on the label.



RESISTANCE MANAGEMENT

- 1 For resistance management, **Strongarm™ 840 WG** is an HRAC group code B2 herbicide. Any weed population may contain individuals naturally resistant to **Strongarm™ 840 WG** and other group code B2 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **Strongarm™ 840 WG** or any other group code B2 herbicide.
- 2 Avoid exclusive repeated use of herbicides from the same herbicide group code.
- 3 Alternate or tank mix with registered products from different herbicide group codes.
- 4 Integrate other control methods (chemical, cultural, biological) into weed control programmes.
- 5 Monitor each land on a seasonal basis to identify the development of resistance early.



PRECAUTIONS

- Handle with care.
- Harmful if swallowed.
- May irritate the eyes.
- Store away from food and feeds.
- Store in a cool dry place.
- Keep out of reach of children, uninformed persons and animals.
- RE-ENTRY INTERVAL: Do not enter treated area until spray deposit has dried, unless wearing protective clothing.

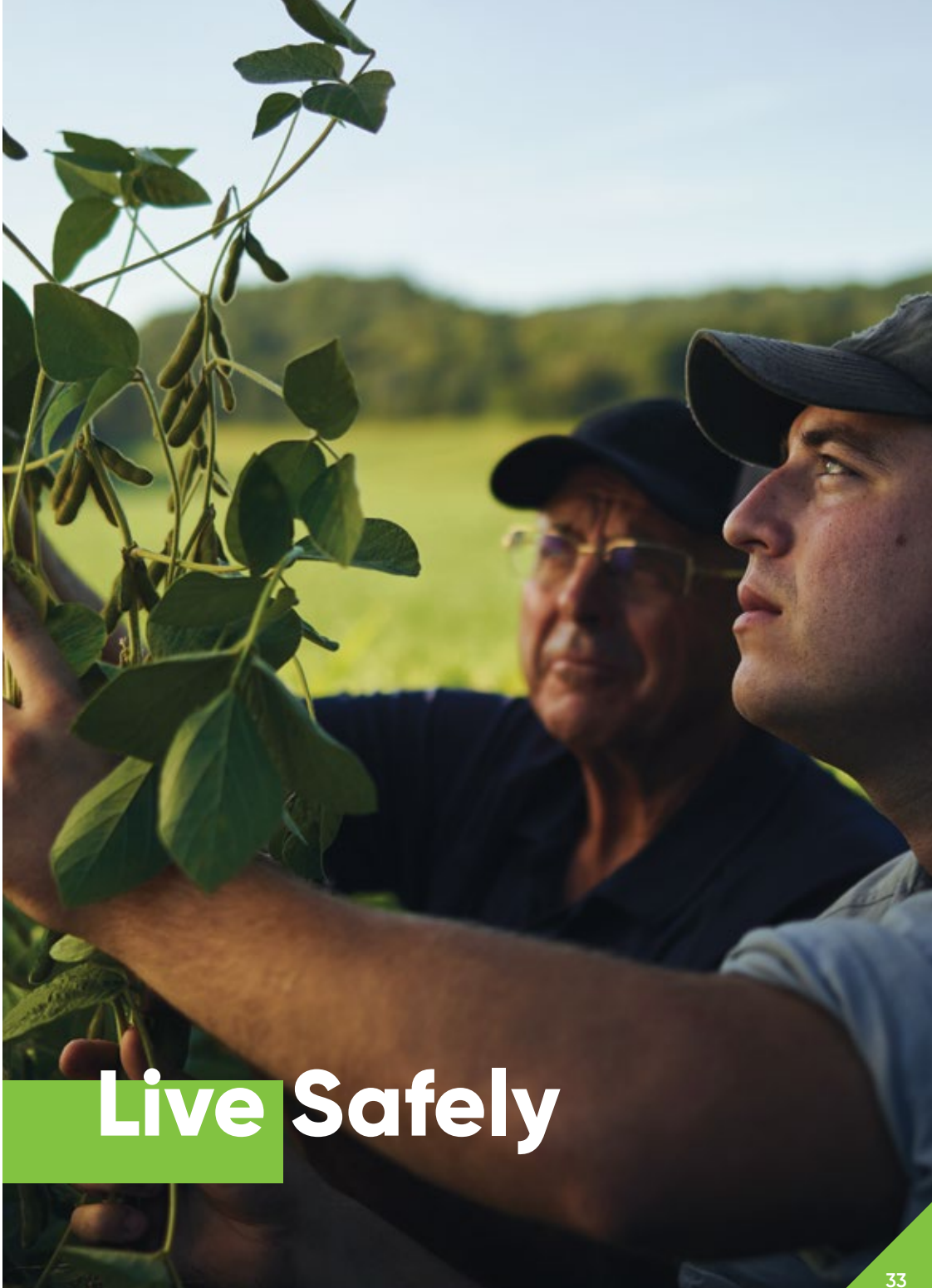


RECROPPING INTERVAL AND CROP ROTATION GUIDELINES

TANK MIXTURE OF COMPLEMENTARY PRODUCT(S) + STRONGARM™ 840 WG	APPLICATION TIMING*	FOLLOW-UP CROP							
		SOYBEANS	GROUNDNUTS	DRY BEANS	GRAIN SORGHUM	MAIZE	POTATOES	SUNFLOWER	WHEAT, OATS, BARLEY
		RECROPPING INTERVAL (MONTHS)							
ALACHLOR 384 EC + STRONGARM™ 840 WG	POST	0	0	10	10	10	10	10	5
ALACHLOR 480 CS + STRONGARM™ 840 WG	PRE	0	0	10	10	10	10	10	5
RELAY™ SUPER 900 EC + STRONGARM™ 840 WG	PRE	3	0	10	10	10	10	10	5
METAGAN® GOLD + STRONGARM™ 840 WG	PRE	0	0	10	10	10	10	10	5



THIS DOCUMENT DOES NOT REPLACE THE LABEL OF THE PRODUCT, SEE LABEL FOR COMPLETE INFORMATION





MODE OF ACTION & CHEMICAL GROUP

SureStart™ has multiple modes of action – a mixture of a systemic auxin (Group O), a cell-division inhibitor (K3) and an ALS (AcetoLactate Synthase) enzyme inhibitor (Group B). This product controls weeds by disrupting normal plant growth patterns and/or by inhibiting production of the enzyme essential for production of certain amino acids needed for normal plant growth.



GETTING THE BEST FROM SURESTART™

SureStart™ herbicide provides dependable, broad-spectrum control of grasses and broadleaf weeds as listed on the label.

Three modes of actions provide foundation control of ALS-, glyphosate and triazine resistant weeds.

Good aid to control problematic weeds like purslane and common dubbeltjie.

Excellent tool to prevent herbicide resistance.

Up to six weeks of residual control that extends your post glyphosate application timing.

SureStart™

HERBICIDE

SureStart™
HERBICIDE

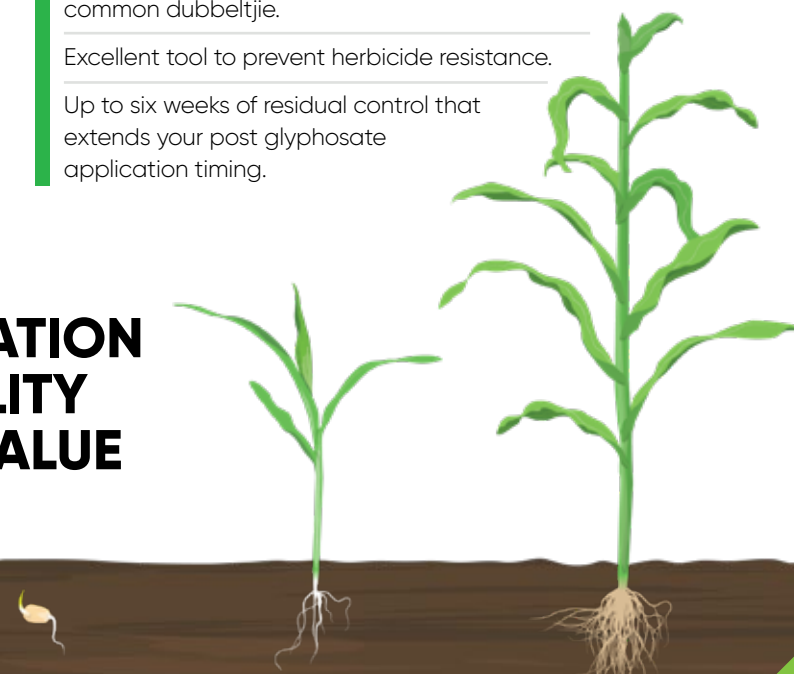


**450 g/ℓ Acetochlor, 35 g/ℓ Clopyralid,
14 g/ℓ Flumetsulam, 10.79g/ℓ Furilazole(Safener)**

SureStart™ is a systemic suspension emulsion herbicide for the pre- and early postemergence control of annual broadleaf weeds and some annual grasses in maize.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: SureStart™ contains acetochlor, clopyralid, flumetsulam and furilazole (Safener) (Harmful) • Reg. No. L10385 | Act No. 36 of 1947

APPLICATION FLEXIBILITY ADDS VALUE



PRE-PLANT

PRE-EMERGENCE

EARLY POST-EMERGENCE

V8 STAGE



KEY ATTRIBUTES

- 1 **SureStart™** herbicide can be applied from pre-plant through early postemergence, providing growers with the flexibility to overcome unexpected delays at application.
- 2 Tank-mix-compatible with glyphosate (refer to label).
- 3 Provides dependable, broad-spectrum control of grasses and broadleaf weeds as listed on the label including herbicide-resistance species.
- 4 Manages weeds that are tolerant or resistant to glyphosate.
- 5 Available in a convenient premix formulation designed at the optimum use rate for protecting herbicide-tolerant maize.
- 6 Can be used in atrazine-restricted areas for effective weed control
- 7 Effective in all tillage systems.



PRECAUTIONS

- **SureStart™** should only be applied **ONCE** per season.
- Do not use flood irrigation to apply or incorporate this product. Besides possible crop injury, weed control efficacy may also be reduced.
- Do not apply **SureStart™** through any type of irrigation systems.
- Not to be used as an aerial application.
- Do not use **SureStart™** on maize in combination with organophosphate insecticides.
- Do not use **Surestart™** to seed maize, popcorn and other exotic cultivars.

FOR FURTHER ADVICE ON SENSITIVE MAIZE CULTIVARS, CONTACT YOUR LOCAL CORTEVA AGRISCIENCE™ REPRESENTATIVE.



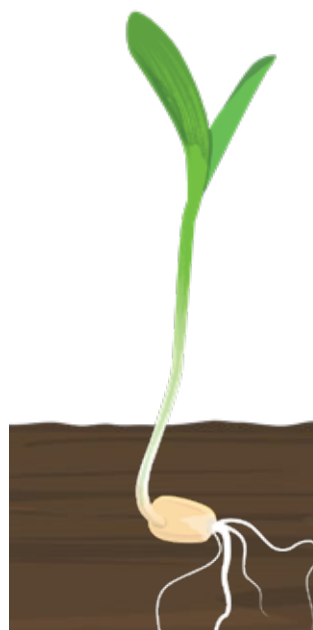
COMPATIBILITY

The compatibility of **SureStart™** in tank mixtures with recommended products may be influenced by the formulation of the products. The quality of the water may also have an effect on the tank mixtures. Since the formulation of recommended products may change without the knowledge of Corteva Agriscience™ and the quality of water may vary from farm to farm, a physical compatibility test should always be carried out prior to application. Corteva Agriscience™ does not accept any responsibility for the crop tolerance of the tank mixtures where the formulation of products has changed or for mixtures with products not listed on the label.



RESISTANCE MANAGEMENT

- 1 **SureStart™** has multiple modes of action – a mixture of a systemic auxin (Group O), a cell-division inhibitor (K3) and an ALS (AcetoLactate Synthase) enzyme inhibitor (Group B). This product controls weeds by disrupting normal plant growth patterns and/or by inhibiting production of the enzyme essential for production of certain amino acids needed for normal plant growth.
- 2 Some naturally occurring weed biotypes resistant to **SureStart™** herbicide and other herbicides that are either systemic auxin-type herbicides, cell-division inhibitors or ALS inhibitors, may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if herbicides with the same mode of action are used repeatedly. These resistant weeds, especially where known cases of ALS-resistant grasses occur, will not be controlled by **SureStart™** herbicide, other systemic auxin-type, ALS inhibitors or cell-division inhibitors.
- 3 Integrate tillage, crop rotation, mechanical or chemical control methods (including the use of non-selective herbicides) during the fallow period into weed control programs whenever practical.
- 4 Avoid exclusive repeated use of herbicides from the same mode of action group. Plan crop rotations to allow use of herbicides from different mode of action groups.
- 5 Maintain herbicide use records for each field.
- 6 Prevent movement of resistant weed seeds and vegetative plant material to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- 7 When grazing, start with fields with the least weed resistance before moving to fields with high resistance due to the possibility of animals spreading the seed.
- 8 Inspect all fields annually to identify the development of resistance early.





RE-CROPPING INTERVAL AND CROP ROTATION GUIDELINES

The intervals specified below will only be valid if favourable soil moisture and temperature conditions prevail to promote more rapid breakdown of **SureStart™** by microbial activity. Abnormally dry and/or cold conditions may result in slower degradation.

FOLLOWING CROPS



Maize



Wheat



Dry beans, groundnuts, potatoes, sorghum, soybeans, sunflowers



Barley, oats

WITHHOLDING PERIODS

None

4 months

9 months

12 months



Be Curious



Oncol™ SUPER 220 EC

INSECTICIDE

Oncol™ SUPER 220 EC

INSECTICIDE



20 g/ℓ Fenvalerate (pyrethroid)
200 g/ℓ Benfuracarb (carbamate)

An emulsifiable concentrate systemic and contact insecticide for the control of sorghum stalk borer (*Chilo partellus*), maize stalk borer (*Busseola fusca*) and fall armyworm (*Spodoptera frugiperda*) in grain sorghum, maize and sweetcorn.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Oncol™ SUPER 220 EC contains benfuracarb and fenvalerate (Toxic) • Reg. No. L7649 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Oncol™ SUPER 220 EC is a group 1A and 3 insecticide (IRAC). The active ingredient benfuracarb has systemic, stomach and contact action. It is an acetylcholinesterase (AChE) inhibitor. Fenvalerate is non-systemic with contact and stomach action. It is a sodium channel modulator. Both actives target the nerves and muscles of the target pest.



GETTING THE BEST FROM ONCOL™ SUPER 220 EC

Where Oncol™ SUPER 220 EC is used, the optimal efficacy thereof will be obtained in water with a pH of 4,5-5,5. Water of a higher or lower pH than 4,5-5,5 should be buffered to pH 4,5-5,5 by using a registered water pH buffer at the recommended rate.

Where pH buffer is used to adjust the pH of the water the pH buffer must be mixed with the total volume of water required for that particular tank mixture before adding the Oncol™ SUPER 220 EC.



GROUND APPLICATION

Thorough wetting of plants is important in order to achieve good pest control. For broadcast application a spray volume of 300 ℓ spray mixture per hectare should be used. For row application a spray volume of 3 ℓ spray mixture per 100 m row length should be used.



AERIAL APPLICATION

A spray mixture volume of 30 to 40 ℓ per Ha is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aurally at a lower volume rate than recommended above.



PESTS CONTROLLED IN MAIZE, SWEETCORN AND SORGHUM INCLUDE:



Maize stalk borer (*Busseola fusca*)



Fall army worm (*Spodoptera frugiperda*)



Sorghum stalk borer (*Chilo partellus*)



PRECAUTIONS

- Do not allow grazing on treated maize and sorghum fields.
- Handle with extreme care.
- Poisonous when ingested, inhaled or absorbed through skin. Mild eye irritant.
- Toxic to fish, wildlife and bees.
- Flammable – store away from open flames.
- Store under lock and key away from food and feed. Keep out of reach of children, uninformed persons and animals.



PRE-HARVEST INTERVAL

Allow the following withholding period between last application and harvest:



Sorghum

28 days



Maize and sweetcorn

Do not apply after tassel



RESISTANCE MANAGEMENT

- 1 Avoid the exclusive repeated use of insecticides from the same chemical subgroup.
- 2 Do not use less than recommended label rates of any insecticide.
- 3 Target applications preferably against early instar larvae of the pest whenever possible.
- 4 Include proven cultural and biological control practices within an IPM program.





Uphold™ 360 SC

INSECTICIDE

Uphold™ 360 SC
INSECTICIDE



360 g/ℓ Spinetoram/methoxyfenozide

Uphold™ 360 SC insecticide is a new product developed to deliver quick knockdown and long residual control of lepidopteran pests, including hard-to-control lepidopteran species on Cruciferae (all), maize, sweetcorn and sorghum.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Uphold™ 360 SC contains spinetoram and methoxyfenozide (Caution) • Reg. No. L10164 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

The first active ingredient, **spinetoram**, is a spinosyn insecticide, the only class of chemistry classified in Group 5 by the Insecticide Resistance Action Committee (IRAC). It is a fermentation product enhanced by chemical modifications that enable potent and fast activity at low dose rates, acting on nerves of target pests. The second active ingredient, **methoxyfenozide**, is a diacylhydrazine insecticide, the only class of chemistry in Group 18 of the IRAC classification. It affects the growth and development of target insects by mimicking the molting hormone ecdysone, inducing a premature and lethal molt and giving **Uphold™ 360 SC** insecticide a long-lasting effect. The quick knockdown of **spinetoram** and the long residual control of **methoxyfenozide** along with their selective and distinct modes of action make **Uphold™ 360 SC** insecticide a robust new product that delivers broad spectrum control of the lepidopteran complex in a single formulation.



GETTING THE BEST FROM UPHOLD™ 360 SC

Proper coverage of target area is important.

Do not use muddy water to prepare the spray mixture.

Although the pH of the spray mixture does not have an effect on the initial knockdown performance, a low pH value (< pH 5) of the spray mixture may decrease the residual performance. It performs best at pH between 5 and 8.



KEY ATTRIBUTES

- 1 Quick knockdown.
- 2 Long-lasting control.
- 3 Activity on target pests via contact and ingestion.
- 4 Broad spectrum lepidopteran activity.
- 5 Dual mode of action – providing a unique fit to manage pest populations resistant to other insecticide groups e.g fall armyworm (*Spodoptera frugiperda*).
- 6 Ovi-larvicidal activity controls both eggs and caterpillars.



PESTS CONTROLLED IN MAIZE, SWEETCORN AND SORGHUM INCLUDE:



Maize stalk borer (*Busseola fusca*)



Fall army worm (*Spodoptera frugiperda*)



Sorghum stalk borer (*Chilo partellus*)



COMPATIBILITY WITH IPM

Highly compatible with IPM programs in various crops.

Methoxyfenozide has high specificity to lepidopteran pests which means it does not disrupt members of other insect orders and mites and has a low impact on most beneficial predators and parasitoids.

Spinetoram is not active against most predatory insects and has minimal negative impact on parasitoids and pollinators after the spray has dried.



PRE-HARVEST INTERVAL

Allow the following withholding period between last application and harvest:



Cruciferae (all)

21 days



Maize

21 days



Sweetcorn

21 days



Sorghum

21 days



RESISTANCE MANAGEMENT

- 1 Avoid the exclusive repeated use of insecticides from the same chemical subgroup.
- 2 Do not use less than recommended label rates of any insecticide.
- 3 Target applications preferably against early instar larvae of the pest whenever possible.
- 4 Include proven cultural and biological control practices within an IPM program.
- 5 Do not make more than two consecutive applications of **Uphold™ 360 SC** insecticide or other Group 5 or Group 18 insecticides.



Acanto[®] PLUS 280 SC

FUNGICIDE

Acanto[®] PLUS 280 SC

FUNGICIDE



200 g/ℓ Picoxystrobin (strobilurin)
80 g/ℓ Cyproconazole (triazole)

Preventive, systemic and translaminar suspension concentrate fungicide for the control of grey leaf spot, northern corn leaf blight and brown rust in maize and soybean rust in soybeans.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Acanto[®] PLUS 280 SC contains picoxystrobin and cyproconazole (Caution) • Reg. No. L9149 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Acanto[®] Plus 280 SC is a combination of two complementary active ingredients and contains 200 g/ℓ **picoxystrobin** (strobilurin – FRAC group 11 fungicide) and 80 g/ℓ **cyproconazole** (triazole – FRAC group 3 fungicide).

Picoxystrobin belongs to the chemical group of strobilurins. It inhibits the respiration of fungal cells by binding to a specific enzyme called complex III, in the mitochondria. Cellular processes, (consumers of energy), are then blocked, including the germination of spores.

Picoxystrobin is progressively absorbed by the plant. Its action is essentially preventive (contact activity) but also curative (systemic activity).

Cyproconazole is a triazole, inhibiting the biosynthesis of sterols. It blocks the synthesis of ergosterol, a vital phase in the cell metabolism of the parasitic fungi. It triggers a deficiency in lipids essential to the development of cell membranes and blocks mycelium growth.

Cyproconazole has strong systemic properties. It penetrates very quickly into the plant and has a preventive and curative action.



KEY ATTRIBUTES

- 1 More complete coverage because it is rapidly absorbed and moves quickly into and within each plant. This leads to excellent rainfastness and protection of new growth.
- 2 A broad-spectrum fungicide that will deliver more reliable results by controlling foliar fungal diseases.
- 3 Strong preventative, residual and curative activity.
- 4 Unique movements within the plant and crop canopy.
- 5 Resistance management strategy with the two unrelated active ingredients.
- 6 Studies have demonstrated that **Acanto® PLUS 280 SC** fungicide will provide more reliable plant health and disease control for improved yields. The higher yield results are due to the maintenance of green leaf area, also referred to as a "greening effect". Because of this greening effect leaves have the potential to still be able to photosynthesize later in season. The potential for prolonged photosynthesis will result in increased yields under certain conditions.





COMPATIBILITY

Acanto® PLUS 280 SC is compatible with H&R Crop Oil (Reg. No. L6062 Act No. 36 of 1947), Solwet (Reg. No. L8679 Act No. 36 of 1947), Link (Reg. No. L8675 Act No. 36 of 1947), Direct (Reg. No. L8675 Act No. 36 of 1947) in maize and H&R Crop Oil (Reg. No. L6062 Act No. 36 of 1947) and Trend® 90 (Reg. No. L8207 Act No. 36 of 1947) in soybeans. The compatibility of **Acanto® PLUS 280 SC** with other products has not been fully investigated. Tank mixtures that have not been evaluated for physical compatibility and crop safety must first be tested on a limited scale. Consult the manufacturer in case of uncertainty.



PRE-HARVEST INTERVAL

Allow the following withholding period between last application and harvest:

	Maize	28 days
	Soybeans	56 days



RESISTANCE MANAGEMENT

- 1 **Acanto® PLUS 280 SC** is a combination of FRAC group code 11 and FRAC group code 3 fungicides. Any fungus population may contain individuals naturally resistant to group code 3 or code 11 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicide groups are used separately on a continuous basis on their own. The use of **Acanto® PLUS 280 SC** will help minimise the occurrence of resistant fungi to either of the group code 3 and group code 11 fungicides on their own.
- 2 Avoid exclusive repeated use of fungicides from the same fungicide group code. Alternate or tank mix with products from different fungicide group codes.
- 3 Integrate the control methods (chemical, cultural, biological) into disease control programmes



PRECAUTIONS

- Do not graze treated soybeans or maize or use as fodder.
- Keep out of reach of children, uninformed persons and animals.
- Handle with care.
- Prevent contact with eyes and skin since the product may cause eye and skin irritation.
- Harmful if swallowed.
- Toxic to fish and harmful to other aquatic organisms.
- Store away from food and feed.
- RE-ENTRY: Do not enter treated area within 1 day after treatment unless wearing protective clothing.



Hit™ 500 SC

FUNGICIDE

Hit™ 500 SC
FUNGICIDE



500 g/ℓ Procymidone (dicarboximide)

A fungicide (suspension concentrate) for the control of diseases on green beans, dry beans and soybeans etc, (refer to label for complete list of crops).

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Hit™ 500 SC contains procymidone (Caution) • Reg. No. L7575 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Hit™ 500 SC inhibits mycelial growth and prevents spore germination by inhibiting triglyceride synthesis in the fungus. For resistance management, **Hit™ 500 SC**, is a FRAC group code 2 (dicarboximide) fungicide. Any fungus population may contain individuals naturally resistant to **Hit™ 500 SC** and other FRAC group code 2 (dicarboximide) fungicides.



GETTING THE BEST FROM HIT™ 500 SC

The efficacy of **Hit™ 500 SC** may be reduced by very hard water (>1 000 p.p.m. solutes) and by water with high pH value.

The optimal efficacy of **Hit™ 500 SC** will be obtained at pH 4,5 – 5,5. Spray water of a higher or lower pH than 4,5 – 5,5 should be buffered to pH 4,5 – 5,5 by using CURABUFF 500 SL (Reg. No. L 4731).

Use the spray mixture without delay and do not allow to stand for prolonged periods (e.g. overnight).

Continue agitating the spray mixture constantly during mixing and spray operation.



DISEASES CONTROLLED BY Hit™ 500 SC



Control of **Stemrot** (*Sclerotinia sclerotiorum*) in green beans, dry beans and soybeans.



COMPATIBILITY

Hit™ 500 SC is compatible with Dithane™ M-45 800 WP (Reg. No. L2914), Dithane™ NEOTEC 750 WG (Reg. No. L4213) and Dithane™ M-45 800 WP NT (Reg. No. L7484).



PRE-HARVEST INTERVAL

Allow the following withholding period between last application and harvest:



Potatoes

35 days



Peas

21 days



Beans

14 days



RESISTANCE MANAGEMENT

- 1 For resistance management, Hit™ 500 SC, is a FRAC group code 2 (dicarboximide) fungicide. Any fungus population may contain individuals naturally resistant to Hit™ 500 SC and other group code 2 (dicarboximide) fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. These resistant fungi may not be controlled by Hit™ 500 SC or any other group code 2 (dicarboximide) fungicides.
- 2 Avoid exclusive, repeated use of fungicides from the same fungicide group code. Alternate or tank mix with products from different fungicide group codes.
- 3 Integrate other control methods (chemical, cultural, biological) into disease control programmes.



PRECAUTIONS

It is known that strains of fungi can develop resistance to dicarboximides. Where such resistant strains occur Hit™ 500 SC and other dicarboximides will not give effective control and alternative products with a different mode of action to the dicarboximides should be used in the programme.



GROUNDNUTS, DRY BEANS, SOYBEANS AND MAIZE GUIDE EDITION 2

FOR MORE INFORMATION CONTACT THE REGISTRATION HOLDER:

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Waterfall City, Midrand, 1686, South Africa • DuPont de Nemours South Africa
(PTY) Ltd • Block B, 1st Floor, 34 Whiteley Road, Melrose Arch, South Africa.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Aconto® PLUS 280 SC contains piconoxystrobin and cyproconazole (Caution) | Reg. No. L9149 | Act No. 36 of 1947 • Accent® contains nicosulfuron (Caution) | Reg. No. L5157 Act No. 36 of 1947 • Broadstrike™ 800 WG contains flumetsulam (Caution) | Reg. No. L6180 | Act No. 36 of 1947 • Classic® contains chlorimuron ethyl (Caution) | Reg. No. L4164 Act No. 36 of 1947 • Gallant™ SUPER contains Haloxypop-R Methyl Ester (Caution) | Reg. No. L4962 | Act No. 36 of 1947 • Hit™ 500 SC contains procymidone (Caution) | Reg. No. L7575 | Act No. 36 of 1947 • Oncol™ SUPER 220 EC contains benfuracarb and fenvalerate (Toxic) | Reg. No. L7649 | Act No. 36 of 1947 • Strongarm™ 840 WG contains diclosulam (Caution) | Reg. No. L8663 | Act No. 36 of 1947 • SureStart™ contains acetochlor, clopyralid, flumetsulam and furilazole (Safener) (Caution) | Reg. No. L10385 | Act No. 36 of 1947 • Uphold™ 360 SC contains spinetoram and methoxyfenozide (Caution) | Reg. No. L10164 | Act No. 36 of 1947.

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