

The background is a solid yellow color. At the top, there are three stylized white clouds of varying sizes. Below the clouds, the text 'CEREALS GUIDE' is written in large, bold, white capital letters. Underneath that, 'EDITION 4' is written in a smaller, white, sans-serif font. The bottom half of the image features a stylized landscape with rolling hills. The foreground is a light yellow field with a dense field of small, five-petaled flowers in shades of yellow and orange. Behind this, a darker yellow hill rises, topped with a field of wheat stalks. The overall aesthetic is clean, modern, and agricultural.

CEREALS GUIDE

EDITION 4



CONTENT

Acanto[®] 250 SC 4
FUNGICIDE

NEW **Aubaine**[®] 518 SC 8
HERBICIDE

Broadstrike[®] 800 WG 12
HERBICIDE

Derby[®] 175 SC 16
HERBICIDE

Flexidor[™] 500 SC 20
HERBICIDE

Gallant[®] SUPER 24
HERBICIDE

Kerb[™] FLO 400 SC 28
HERBICIDE

Lontrel[™] 100 SL 32
HERBICIDE

Pallas[®] 45 OD 36
HERBICIDE

NEW **Pixxaro**[®] 266 EC 40
Arylex[®] active
HERBICIDE

Quelex[™] 200 WG 44
Arylex[®] active
HERBICIDE

Starane[®] 200 EC 48
HERBICIDE

Tarzac[®] 320 WG 52
Arylex[®] active
HERBICIDE



Acanto[®] 250 SC

FUNGICIDE

Acanto[®] 250 SC

FUNGICIDE



250 g/ℓ Picoxystrobin

Acanto[®] 250 SC is a preventive, systemic and translaminar suspension concentrate fungicide for the control of the diseases in barley and wheat as listed on the label.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Acanto[®] 250 SC contains picoxystrobin (Caution) • Reg. No. L8233 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Acanto[®] 250 SC is a FRAC Group 11 fungicide and contains **picoxystrobin**, a broad spectrum cereal fungicide from the strobilurin group. **Picoxystrobin** and other strobilurin analogues inhibit fungal respiration.



COMPATIBILITY

Acanto[®] 250 SC is compatible with Propizole 250 EC (Reg. No. L7561 Act No. 36 of 1947), Propiconazole 250 EC (Reg. No. L7306 Act No. 36 of 1947) and Trend[®] 90 (Reg. No. L8207 Act No. 36 of 1947) in wheat and barley and with H & R Crop Oil (Reg. No. L6802 Act No 36 of 1947) and Trend[®] 90 (Reg. No. L8207 Act No 36 of 1947) in potatoes. The compatibility of **Acanto[®] 250 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.



KEY ADVANTAGES

- Acanto® 250 SC** has systemic, translaminar and preventative properties and is vapour active.
- Acanto® 250 SC** shows good crop safety, disease control and maintenance of green leaf area which results in significant yield benefits.
- Acanto® 250 SC** is best used as a preventative treatment or in the earliest stages of disease development.

Allow the Following Withholding Period Between Last Application and Harvest

CROP	WITHHOLDING PERIOD
Barley	50 days
Wheat	35 days
Wheat & Barley (Grazing)	35 days
Potatoes	7 days

WARNINGS



- Do not apply more than two applications on wheat and barley.
- Handle with care.
- Harmful if swallowed.
- Prevent contact with eyes and skin since the product may cause eye and skin irritation.
- Store away from food and feed.
- Keep out of reach of children, uninformed persons and animals.
- Toxic to fish and harmful to other aquatic organisms.
- RE-ENTRY: Do not enter treated area within 1 day after treatment unless wearing protective clothing.

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

GROUND APPLICATION

CROP & DISEASE	AMOUNT PER ha	REMARKS
BARLEY Net (Leaf) Blotch only <i>(Pyrenophora teres)</i> Leaf Spot (Scald) <i>(Rhynchosporium secalis)</i> Rust <i>(Puccinia hordei)</i> Powdery Mildew <i>(Erysiphe graminis)</i>	300 ml Acanto® 250 SC + 400 ml Capitan® 250 EW in at least 300 l water per ha OR 300 ml Acanto® 250 SC + 500 ml Propizole 250 EC in at least 300 l water per ha	Apply preventively or at the very first signs of disease. A follow-up application may be necessary 21 days after first application. The addition of a non-ionic wetter (e.g. Trend® 90 at a dosage rate of 100 ml per 100 l spray mixture) is recommended for optimal control. Do not exceed a maximum of two Acanto® 250 SC containing applications per season. Allow 50 days between last application of Acanto® 250 SC and harvest. Refer also to applicable pre-harvest withholding period on the Capitan® 250 EW or Propizole 250 EC label when a tank mixture of Acanto® 250 SC and Capitan® 250 EW or Propizole 250 EC is applied.
WHEAT Leaf Rust (Brown rust) <i>(Puccinia recondita)</i> Speckled Leaf Blotch <i>(Septoria tritici)</i> Glume Blotch <i>(Septoria nodorum)</i> Powdery Mildew <i>(Erysiphe graminis)</i> Yellow Rust (Stripe Rust) <i>(Puccinia striiformis)</i>	300 ml Acanto® 250 SC + 500 ml/ha H&R Crop Oil OR 50 ml/100 l Trend® 90 Alternated weekly with Mancozeb at 3.0 kg/ha or Chlorotalonil 720 SC at 1.5 l/ha in at least 400 l water per ha	Apply preventively or at the very first signs of disease. A follow-up application may be necessary 21 days after first application. The addition of a non-ionic wetter (e.g. Trend® 90 at a dosage rate of 100 ml per 100 l spray mixture) is recommended for optimal control. Do not exceed a maximum of two Acanto® 250 SC containing applications per season. Allow 35 days between last application of Acanto® 250 SC and harvest. Refer also to applicable pre-harvest withholding period on the Capitan® 250 EW or Propizole 250 EC label when a tank mixture of Acanto® 250 SC and Capitan® 250 EW or Propizole 250 EC is applied.

NEW
PRODUCT



Aubaine® 518 SC

HERBICIDE

Aubaine® 518 SC
HERBICIDE



500 g/ℓ Chlorotoluron (Urea)
18.75 g/ℓ Isoxaben (Benzamide)

Aubaine® 518 SC is a suspension concentrate herbicide for the residual pre-plant, pre-emergence or early post-emergence control of weeds in wheat in the winter rainfall region.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Aubaine® 518 SC contains chlorotoluron (Urea) and isoxaben (Benzamide) (Harmful) • Reg. No. L11069 | Act No. 36 of 1947








MODE OF ACTION & CHEMICAL GROUP

Aubaine® 518 SC is a combination of two unique modes of action obtained from **chlorotoluron** (HRAC Group C2 / WSSA Group 5) that control ALS (AcetoLactate Synthase) enzyme inhibiting herbicide resistant weeds and **isoxaben** (HRAC Group L / WSSA Group 29) the only active ingredient in the Benzamide group that controls broadleaf weeds in cereals. **Isoxaben** inhibits cellulose synthesis while **chlorotoluron** inhibits photosynthesis and is well rounded for herbicide resistance management.



GETTING THE BEST FROM AUBAINE® 518 SC

-  Pre-plant, pre-emergence application must be done on even soil for maximum surface coverage and application must not be obstructed by plant material from the previous cropping season.
-  Apply only as a pre-plant, pre-emergence treatment if planting is done with an Ausseeder (Ausplow), Voorplanter, Equalizer or a similar knife-point planter with press wheels.
-  Planting speed should be 5-6 km/h to avoid throwing treated soil into adjacent crop rows.
-  Ensure that **Aubaine® 518 SC** is washed into the soil as soon as possible for optimal pre-plant, pre-emergence control, preferably 25-40 mm within 7 days after application.
-  Ensure that crop seedlings are strong, vegetatively growing and uniform in size with early post emergence application.
-  Apply at a rate of 200-250 ℓ water/ha at a low spray pressure of 2 bar / 200 kPa to form a coarse droplet spray.
-  Apply at moderate humidity and avoid application with the possibility of frost, extreme cold, temperature fluctuations or wind speeds exceeding 5m/s.
-  Do not apply on well drained soil when heavy rains are expected.
-  Care must be taken with the cultivation of brassicas and legumes in the following season to avoid adverse carry-over effects.
- Do not apply to wheat under sown with legumes.
- Apply only once per season

APPLICATION



CROP:
Wheat



RATE/ha:
PRE-PLANT & PRE-EMERGENCE
3.0-3.6 ℓ/h Aubaine® 518 SC
EARLY POST-EMERGENCE
2.8-3.0 ℓ/h Aubaine® 518 SC



REMARKS:
Apply directly to damp, uncultivated soil as a broadcast application and incorporate by knife point planter's press wheels pre-plant for pre-emergence weed control. For early post-emergence control apply over the crop when weeds are at 2-4 leaf growth stage. DO NOT apply after the crop has reached the 3 leaf growth stage. DO NOT apply as a post-emergence spray before the 1st leaf stage of the crop.



KEY ADVANTAGES

- 1 Controls *Lolium spp* resistant to ALS (AcetoLactate Synthase) enzyme inhibiting herbicides in wheat.
- 2 Options for pre-plant, pre-emergence, and early post-emergence application.
- 3 The unique mode of action combination makes it an effective tool to manage herbicide resistance while also controlling ryegrass and selected broadleaf weeds in wheat.

WEEDS CONTROLLED BY AUBAINE® 518 SC:

Aubaine®
518 SC

HERBICIDE

BROADLEAF WEEDS

PRE-PLANT & PRE-EMERGENCE CONTROL: **Clovers** *Medicago spp***

EARLY POST-EMERGENCE CONTROL: **Musk heron's bill** *Erodium moschatum*

** Variable control may be expected

GRASSES

PRE-PLANT, PRE-EMERGENCE & EARLY POST-EMERGENCE CONTROL:

Ryegrass *Lolium spp*

WAITING PERIOD FOR FOLLOW-UP CROPS

Wheat can be planted in upcoming seasons following the application of Aubaine® 518 SC without any withholding period.

Aubaine® 518 SC breaks down through microbial activity under favorable temperature and humidity conditions in the soil. Given that these conditions prevail, breakdown will occur more rapidly. A replanting period of 24 months is recommended for crops other than wheat. Test strips of the desired follow crop should be planted and monitored during germination and emergence for any abnormal growth to determine if the follow-up crop can be grown successfully.



WARNINGS

- Do not enter treated area until spray deposit has dried unless wearing protective clothing.
- Allow 56 days between application and harvest.
- Do not allow the contamination of nearby water bodies .
- Rinse empty container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinse water to the contents of the spray tank before destroying the container in the prescribed manner and do not re-use it for any other purpose.

Crop injury may increase in severity when the crop is under stress from unfavourable environmental conditions like temperature extremes, heavy rains and waterlogging, drought, nutrient deficiencies, pest and disease pressure or carry-over herbicide residues.

INCIDENCE WERE REPORTED WHERE WHEAT CULTIVAR SELECTION IMPACTED CROP INJURY SEVERITY

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



Broadstrike® 800 WG

HERBICIDE

Broadstrike® 800 WG
HERBICIDE



800 g/ℓ Flumetsulam

A post-emergence herbicide (with pre-emergence uses) for the control of certain broadleaf weeds in lucerne, medic and clover pastures.

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 which has the ALS (Acetolactate synthase) inhibition method of action. HRAC Group B / WSSA Group 2 herbicide. HRAC Group B / WSSA Group 2 herbicides are Pallas® 45 OD (L8676) and Derby® 175 SC (L6781).



GETTING THE BEST FROM BROADSTRIKE® 800 WG

When the crop and weeds are actively growing.

When weeds are in the seedling stage (2-4 leaves).

When air temperatures are at least 10°C.

When you expect at least 4 but preferably 6 hours of good weather after spraying.

When applied in winter, application should be discontinued early enough, taking the above two points into account.

Avoid application when the crop may obstruct good weed coverage.



COMPATIBILITY

Do not use in a tank mixture with Gallant® SUPER (L4962) herbicide or any other HRAC Group A / WSSA Group 1 herbicide.



KEY ADVANTAGES

- 1 Excellent crop protection for medics, clover and lucerne.
- 2 Early application is possible, to maximise crop production.
- 3 Wheat can be planted within 3 months after **Broadstrike® 800 WG** application.

APPLICATION



CROP:
Clovers, lucerne
and medics



RATE/ha:
50 g Broadstrike® 800 WG
MINIMUM SPRAY VOLUME: 200 l/ha



REMARKS:
Apply with a suitable registered adjuvant as directed
on the label when the crop is in the 3-leaf stage.

WAITING PERIOD FOR FOLLOW-UP CROPS

Using Broadstrike® 800 WG alone on Clovers, Lucerne and Medics

CROP	MONTHS
Soybeans and Dry Beans	0
Groundnuts	0
Sorghum, Maize, Potatoes, Wheat	3
Sunflower	5
All Other Crops	24

Note: Tank mixtures with Broadstrike® 800 WG may have longer withholding periods. Please refer to the label for more details.



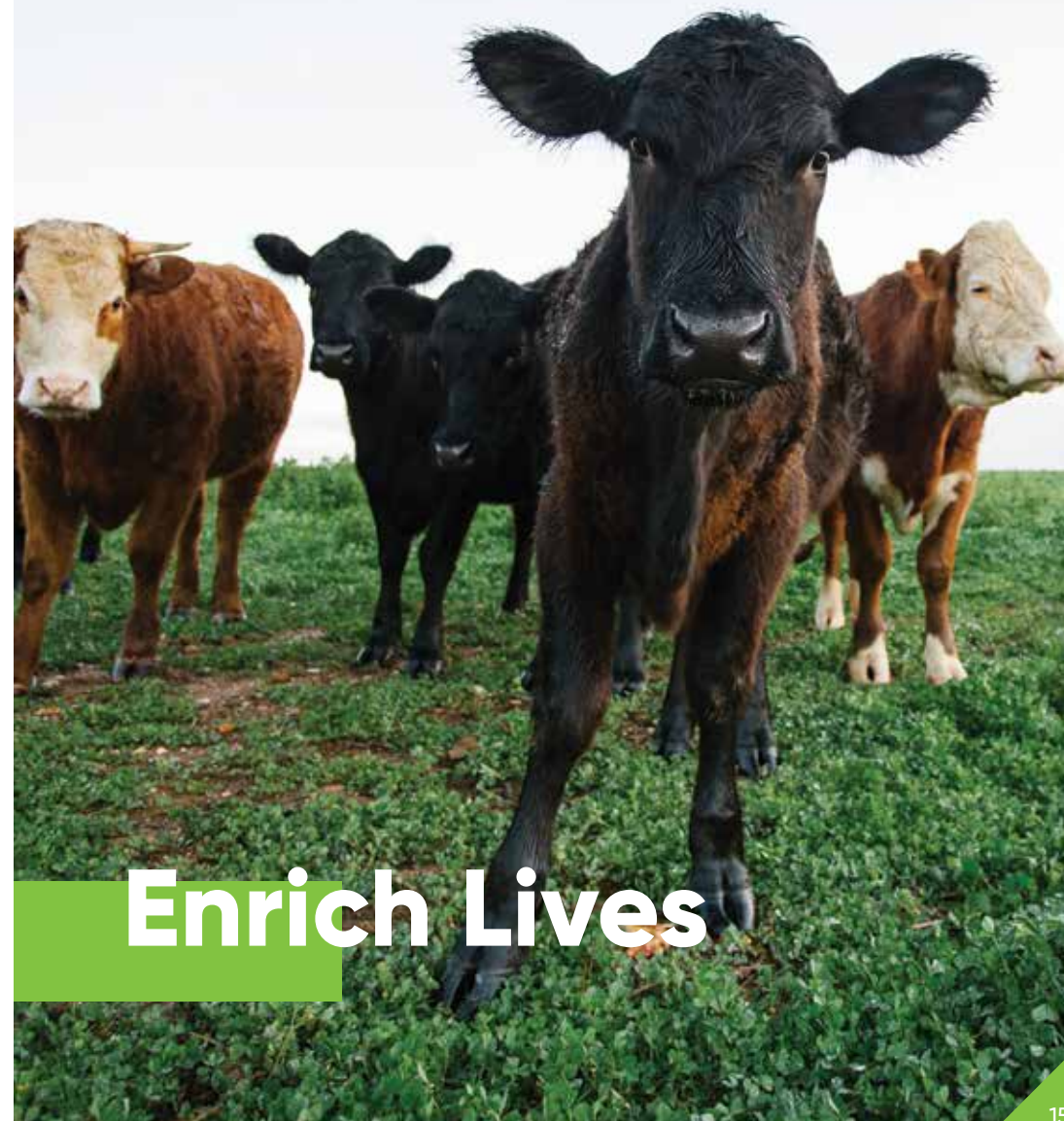
WARNINGS

- Allow 28 days between application and harvest or grazing by livestock.
- Do not spray if rain is expected within 6 hours of application.
- Avoid conditions that place the crop under stress e.g. very cold, wet conditions or drought conditions.
- Avoid poorly drained soil.
- Soil pH <5 and >7 may cause poor control.
- Poor control can be experienced on soils with organic content >3%.

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

Broadstrike®
800 WG

HERBICIDE





Derby[®] 175 SC

HERBICIDE

Derby[®] 175 SC
HERBICIDE



75 g/ℓ Florasulam
100 g/ℓ Flumetsulam

Derby[®] 175 SC is a selective post-emergence herbicide for the control of broadleaf weeds in wheat and oats.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Derby[®] 175 SC contains florasulam and flumetsulam (Caution) • Reg. No. L6781 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Derby[®] 175 SC is part of the triazolopyrimidine group of herbicides, which has the ALS (Acetolactate synthase) inhibition method of action. HRAC Group Code B / WSSA Group 2 herbicide. Other HRAC Group B / WSSA Group 2 herbicides are Pallas[®] 45 OD (L8676) and Broadstrike[®] 800 WG (L6180).



COMPATIBILITY

Derby[®] 175 SC is compatible with Bentrol[®] Super (L5167) Bayer Crop Science AG, Brominal[®] Super (L5168) Bayer Crop Science AG, Brush-Off[®] (L4535) Du Pont, Bucril[®] DS (L3350) Bayer Crop Science AG, Demeton[®] EC (L4852) Villa Crop Protection (Pty) Ltd, Folimat[®] 800 SL (L2316) Bayer Crop Science AG, Hoelon[®] 36 EC (L5568) Bayer Crop Science AG, Monitor[®] 75 WG (L6003) Monsanto, Puma[®] S 120 EC (L5787) Bayer Crop Science AG, Topik[®] 240 EC (L4250) Syngenta AG and copper oxychloride.



KEY ADVANTAGES

- 1 Excellent control of difficult-to-control weeds such as Cape marigold (*gousblom*) and wild radish (*ramenas*).
- 2 Can be used with other herbicides to provide wider protection.
- 3 Excellent crop protection for wheat and oats.
- 4 Wide application window for crop growth stage.
- 5 Does not leach or move laterally in the ground.

GROUND APPLICATION

**CROP:**
Wheat**RATE/ha:**
50 ml Derby® 175 SC
+ 3.5 g BRUSH-OFF
MINIMUM SPRAY VOLUME: 200 l/ha**REMARKS:**

Apply when crop has reached fully developed third trifoliolate and prior to flowering and when the weeds are in the seedling stage (2-4 leaf).

GROUND & AERIAL APPLICATION

**CROP:**
Wheat and oats**RATE/ha:**
50 ml Derby® 175 SC
MINIMUM SPRAY VOLUME:
200 l/ha**REMARKS:**

Apply between the 2-leaf stage and end of tillering of the crop when the weeds are in the seedling stage (2-4 leaves).

Where grass weeds, nl. wild oats, canary seed grass or ryegrass problems occur in wheat, tank mixes as recommended under "COMPATIBILITY" must be consulted.

GROUND & AERIAL APPLICATION

**CROP:**
Wheat and oats**RATE/ha:**
50 ml Derby® 175 SC
+ 350 ml bromoxynil
MINIMUM SPRAY VOLUME: 200 l/ha**REMARKS:**

Apply when crop has reached fully developed third trifoliolate stage but prior to flowering and when the weeds are in the seedling stage (2-4 leaves).

WITHHOLDING PERIOD FOR FOLLOW-UP CROPS

All types of grain (wheat, barley, oats) can be planted without restriction the following season, after the application of Derby® 175 SC.

THE FOLLOWING WITHHOLDING PERIODS BETWEEN APPLICATION AND HARVEST/
GRAZING APPLY:

CROP	MONTHS
Lucerne / Medics	3
All other crops	12

WEEDS
CONTROLLED BY
DERBY® 175 SC:**Bush stinging nettle***Urtica urens***Cape weed***Arctotheca calendula***Clovers***Medicago spp./Trifolium spp.*

DERBY® 175 SC + BROMOXYNIL

Bush stinging nettle*Urtica urens***Cape weed***Arctotheca calendula***Clovers***Medicago spp./Trifolium spp.*

DERBY® 175 SC + BRUSH-OFF

Bush stinging nettle*Urtica urens***Cape weed***Arctotheca calendula***Clovers***Medicago spp./Trifolium spp.***Common mustard***Sisymbrium thellungii***Corn spurry***Spergula arvensis***Pimpernel***Anagallis arvensis***Prostrate knotweed***Polygonum aviculare***Small mallow***Malva parviflora***Pimpernel***Anagallis arvensis***Prostrate knotweed***Polygonum aviculare***Small mallow***Malva parviflora***Pimpernel***Anagallis arvensis***Prostrate knotweed***Polygonum aviculare***Purple echium***Echium plantagineum***Small mallow***Malva parviflora***Small stinkweed***Pentzia suffruticosa*

Derby® 175 SC

HERBICIDE

Volunteer lupins*Lupinus angustifolius***Wild radish***Raphanus raphanistrum***Spiny emex***Emex australis*****Volunteer lupins***Lupinus angustifolius***Wild radish***Raphanus raphanistrum*

** For control of *Emex australis* use only ground application and NOT aerial application.

Spiny emex*Emex australis*****Volunteer lupins***Lupinus angustifolius***White goose foot***Chenopodium album***Wild radish***Raphanus raphanistrum***Yellow sorrel***Oxalis pes-caprae*

WARNINGS

- Do not apply Derby® 175 SC to crops under stress due to severe weather conditions, drought, waterlogging, disease or insect damage.
- Allow 30 days between application and grazing by livestock.
- Do not apply Derby® 175 SC to cereals undersown with legumes.

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



Flexidor™ 500 SC

HERBICIDE

Flexidor™ 500 SC

HERBICIDE



500 g/ℓ Isoxaben

Flexidor™ 500 SC is a post-emergence herbicide for the control of wild radish (*Raphanus raphanistrum*) and wild mustard (*Sisymbrium thellungii*) in lupins (sweet and bitter), undergrowth lucerne and leguminous crops (lucerne and medics) in the winter rainfall regions.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Flexidor™ 500 SC contains isoxaben (Caution) • Reg. No. L5011 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Flexidor™ 500 SC is part of the benzamide group of herbicides which has a cell wall (cellulose) inhibitory action. HRAC Group L / WSSA Group 29 herbicide.



KEY ADVANTAGES

- 1 Only group "L" herbicide registered in lupins, lucerne and medics, so an excellent weed resistance management option.
- 2 Excellent control of wild radish and wild mustard.
- 3 Suppression of several other prominent broadleaf weeds as listed on the label.
- 4 No waiting period when planting cereals (wheat, barley, oats, rye, grain sorghum and maize) after Flexidor™ 500 SC application.

MIXING INSTRUCTIONS

In water with a pH between 4.5 and 5.5; water with a higher or lower pH value than 4.5-5.5 should be buffered with a registered buffer to pH 4.5-5.5.

GROUND APPLICATION**CROP:**

Wheat
Free State only

**RATE/ha:**

150 mℓ Flexidor™ 500 SC
MINIMUM SPRAY VOLUME:
200-400 ℓ/ha

**REMARKS:**

Must be incorporated prior to planting. The depth of incorporation depends on the last cultivation.

GROUND & AERIAL APPLICATION**CROP:**

Lupins (Sweet and Bitter),
Undersown Lucerne and
Leguminous Pastures
(Lucerne and Medics)
in the winter rainfall region.

**RATE/ha:**

150-200 mℓ
Flexidor™ 500 SC
MINIMUM SPRAY VOLUME:
200-400 ℓ/ha

**REMARKS:**

Apply as a post-emergence application for both crop and weeds. Use the lower rate of Flexidor™ 500 SC (150 mℓ/ha) for weeds smaller than the 6-leaf stage and the higher rate Flexidor™ 500 SC (200 mℓ/ha) for weeds from the 6 to 8-leaf stage. The weeds should not have developed further than the 8-leaf stage.

WEEDS CONTROLLED BY FLEXIDOR™ 500 SC:

Flexidor™
500 SC

HERBICIDE

WINTER RAINFALL REGION**Wild mustard**

Sisymbrium thellungii

Wild radish

Raphanus raphanistrum

FREE STATE**Common dubbeltjie**

Tribulus terrestris

Wild mustard

Sisymbrium thellungii

SUPPRESSION OF THE FOLLOWING WEEDS ARE NORMALLY OBTAINED**Common purslane**

Portulaca oleracea

Gisekia

Gisekia africana

Green goosefoot

Chenopodium carinatum

Quickweed

Galinsoga parviflora

Tall khakiweed

Tagetes minuta

White goosefoot

Chenopodium album

**WARNINGS**

- On soils that are acidic, alkaline or brackish, crops may be more susceptible to herbicide damage due to stress/sub-optimal growth.
- For all crops except wheat, barley, oats, rye, grain sorghum and maize, a waiting period of 12 months after the application of Flexidor™ 500 SC is recommended.
- Allow 14 days after spraying before lupin grazing and 150 days in case of undergrowth lucerne and leguminous crops.

Be Curious



Gallant[®] SUPER

HERBICIDE

Gallant[®] SUPER

HERBICIDE



108 g/ℓ *Haloxypop-R Methyl Ester*

A selective systemic post-emergence emulsifiable concentrate herbicide for the control of annual and perennial grasses in broadleaf crops as indicated on the label.

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



MODE OF ACTION & CHEMICAL GROUP

Gallant[®] SUPER is part of the pyridinil-oxyphenoxy group of herbicides which has the inhibition of acetyl-coenzyme A carboxylase as a mode of action.



GETTING THE BEST FROM GALLANT[®] SUPER

Rain within one hour of application may necessitate a follow-up spray.



COMPATIBILITY

Gallant[®] SUPER is compatible with Mamba[®] 360 SL (L4817) and Mamba[®] MAX 480 SL (L7714).



KEY ADVANTAGES

- 1 Excellent control of a range of annual and perennial grasses at lower rates per hectare than competitive products – less product handled, fewer containers to dispose of.
- 2 Very low toxicity to honeybees.
- 3 Non-toxic to earthworms and soil microorganisms.
- 4 Oral[™] LD 50 (mammals) of >5 000 mg/kg. Compare table salt (3 000 mg/kg), nicotine (9 mg/kg), caffeine (192 mg/kg).

MIXING INSTRUCTIONS

In water with a pH of 4.5-5.5; water with a higher or lower pH value than 4.5-5.5 should be buffered to 4.5-5.5.

**CROP:**

Canola, lucerne/medics, and lupins (sweet and bitter)

**RATE/ha:**

0.5-4 ℓ Gallant® SUPER
MINIMUM SPRAY VOLUME: 200 ℓ/ha

**REMARKS:**

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

WITHHOLDING PERIOD FOR FOLLOW-UP CROPS

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.

THE FOLLOWING WITHHOLDING PERIODS BETWEEN APPLICATION AND HARVEST / GRAZING APPLY:

CROP	DAYS
Soybeans/Dry beans	60
Lucerne/Medics/Sugarcane	28
All other crops	40

**WARNINGS**

- Do not use with herbicides other than Mamba® 360 SL (L4817) or Mamba® MAX 480 SL (L7714); if another herbicide is to be used, allow 14 days between applications.
- Do not apply in very hard water (>1000ppm solutes) or use water with a high pH.

GRASS WEEDS CONTROLLED BY GALLANT® SUPER:
Gallant®
SUPER

HERBICIDE

Broad-leaved setaria
Setaria megaphylla
Brome grass
Bromus japonicus
Canary grass
Phalaris canariensis
Common buffalo grass
Panicum maximum
Common paspalum
Paspalum dilatatum
Common wild oats
Avena fatua
Couch paspalum
Paspalum paspaloides
Crab fingergrass
Digitaria sanguinalis
Goose grass
Eleusine indica
Herringbone grass
Urochloa panicoides
Marsh grass
Echinochloa colona
Ripgut brome
Bromus diandrus
Ryegrass
Lolium temulentum
Sweet buffalo grass
Panicum schinzii
Tall paspalum
Paspalum urvillei
Volunteer maize
Zea mays and *Triticum aestivum*

Regrowth may occur on well-established *Paspalum spp.* and *Setaria megaphylla* which will require a follow-up application in the following season.

Build Together



Kerb™ FLO 400 SC

HERBICIDE

Kerb™ FLO 400 SC

HERBICIDE



400 g/ℓ Propyzamide

Kerb™ FLO 400 SC is a suspension concentrate herbicide used for annual winter grasses in orchards (as indicated), canola, grapes, lettuce and legume pastures in the winter rainfall areas.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Kerb™ FLO 400 SC contains propyzamide (Caution) • Reg. No. L4065 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Kerb™ FLO 400 SC is a soil-acting herbicide with uptake occurring through the roots of sensitive grasses that have germinated or just newly emerged. HRAC Group K1 / WSSA Group 3 herbicide.



GETTING THE BEST FROM KERB™ FLO 400 SC

Sufficient rain or irrigation (= 15 mm) within 5 days after application in a single deposit is essential to leach Kerb™ FLO 400 SC into the root zone of sensitive weeds.

Apply to pre-emergent or early post-emergent weeds.

Best results can be expected when applying to a moist seedbed after the clods or loose topsoil have been settled by rain or irrigation. The surface should be relatively fine, even, firm and without large clods. It should also be free of excess organic or surface material (dead or decaying weeds, leaves, plant cuttings, etc.).

Please note that Kerb™ FLO 400 SC should only be applied in winter. The chemical is more active under cool conditions. Warmer conditions are conducive to degradation and shorter residual activity.

High and dense pastures must be grazed before application so that the Kerb™ FLO 400 SC can be applied to the soil.

Is safe for use in normal *Medicago spp* and *Trifolium spp*, used in pasture mixtures in the winter rainfall area.

**CROP:**

Canola
in winter rainfall area

**RATE/Ha:**

1.9 ℓ Kerb™ FLO 400 SC
MINIMUM SPRAY VOLUME: 200 ℓ/ha

**REMARKS:**

Should not be considered unless at least 15 mm rain is expected within 5 days of applications. The user should be aware that grasses germinating from big soil clods not yet broken up after application, or grasses that have been developed past the 3-leaf stage at the time of application, might not be controlled. Failure to follow the guidelines as above could result in poor annual grass control.

POOR CONTROL CAN ALSO RESULT WHEN:

- Annual grasses germinate from deeper than the level to which the Kerb™ FLO 400 SC has leached (especially after deep cultivation).
- Annual grasses have already developed a strong root system.
- Big soil clods present as a result of the cultivation or planting process that has not yet broken up at the time of spraying.

Apply only after the crop has emerged and it has formed 2–3 true leaves. (Crop plants younger than this stage can be damaged or killed).

To expect effective control annual grasses must not be older than the 3-leaf development stage.

After planting under either moist or dry soil conditions sufficient follow-up rains are required to ensure breaking up of clods and settling the seedbed, with resultant even germination of the crop and grasses. After application at least 15 mm sprinkler irrigation or rain in one precipitation within 5 days is required to leach the Kerb™ FLO 400 SC to the root zone of the germinating grasses.

Planting under dry conditions with very low or no sub-soil moisture can cause a cloddy seedbed, combined with insufficient follow up rain/irrigation this could result in uneven germination of crop and/or grasses. In this case, application should be postponed until 100 % of the crop has emerged and developed 2–3 true leaves.

**WARNINGS**

Kerb™ FLO 400 SC is subject to accelerated microbial degradation (VMA). Do not apply more than one Kerb™ FLO 400 SC application within 12 months on a particular piece of land.

Kerb™
FLO 400 SC

HERBICIDE

**KEY ADVANTAGES**

- 1 Good residual control – controls grasses that have not germinated during application.
- 2 Is compatible with insecticides, e.g. dimethoate.

WAITING PERIOD FOR FOLLOW-UP CROPS

THE FOLLOWING WITHHOLDING PERIODS BETWEEN APPLICATION AND HARVEST/ GRAZING APPLY:

CROP	MONTHS
Brassicas, potatoes, beans and onions	6

FOR SMALL GRAIN (WHEAT, OATS, RYE, BARLEY), SEE THE TABLE BELOW:

CULTIVATION PLANT METHOD WAITING PERIOD

CULTIVATION	PLANT METHOD	WITHHOLDING PERIOD
No processing	Plant	10 months
No processing	Sow	18 months
Processing	Plant	18 months
Operation	Sow	18 months

ANNUAL GRASSES CONTROLLED BY KERB™ FLO 400 SC:**Annual bluegrass**

Poa annua

Canary seedgrass

Phalaris canariensis

Common wild oats

*Avena fatua***

Mouse barley

Hordeum murinum

Ratstail fescue

Vulpia myuros

Ripgut brome

*Bromus diandrus***

Rescue grass

*Bromus catharticus***

Ryegrass

Lolium spp

Volunteer wheat

Triticum aestivum

**Note: Annual grasses eg. Avena and Bromus spp which germinate from soil depths deeper than the Kerb™ FLO 400 SC layer will be poorly controlled.



Lontrel™ 100 SL

HERBICIDE

Lontrel™ 100 SL

HERBICIDE



100 g/ℓ Clopyralid

Lontrel™ 100 SL is a systemic water-soluble liquid herbicide for post-emergence control of annual broadleaf weeds as listed on the label in canola.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Lontrel™ 100 SL contains clopyralid (Caution) • Reg. No. L4919 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Lontrel™ 100 SL is part of the pyridine family of herbicides. It is rapidly absorbed through the foliage and is systemic in the phloem and xylem. It acts as a synthetic auxin and symptoms are similar to other growth regulators. HRAC Group O / WSSA Group 4 herbicide. Other HRAC Group O / WSSA Group 4 herbicides are Starane® 200 EC (L4918) and MCPA™ 400 SL (L3616).



GETTING THE BEST FROM LONTREL™ 100 SL

When weeds are in the 2 to 4 leaf stage.

In 150–250 litres spray mixture per hectare.



COMPATIBILITY

Lontrel™ 100 SL is compatible with dimethoate or with cypermethrin or with Gallant® SUPER (L4962).

APPLICATION



CROP:
Canola



RATE/ha:
1.5 ℓ Lontrel™ 100 SL
MINIMUM SPRAY VOLUME: 200 ℓ/ha



REMARKS:
Apply post-emergence at 3-6 leaf stage of Canola when seedling weeds, as listed, are at the 2-4 leaf stage. SANAWETT 90 - 940 SL adjuvant should be added to the spray mixture at 0,1% concentration.



KEY ADVANTAGES

- 1 Narrow spectrum allows control of targeted specific weed groups.
- 2 Good crop safety profile in canola.
- 3 Minimal transfer in soil (half-life in soil of 1-4 weeks).
- 4 Safe to birds, fish, daphnia, bees, ground micro-organisms and earthworms when used according to label instructions.



WARNINGS

- Do not spray if rain is likely within three hours.
- Do not apply to wet weeds.

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

WEEDS CONTROLLED BY LONTREL™ 100 SL:

SEEDLING WEEDS

Cape weed

Arctotheca calendula

Clovers

Medicago spp.

Karoo bush

Pentzia grandiflora

Lontrel™
100 SL

HERBICIDE

**Sustain the Land
and Grow Your
Business**



Pallas[®] 45 OD

HERBICIDE

Pallas[®] 45 OD

HERBICIDE



500 g/ℓ Pyroxulam

Pallas[®] 45 OD is a selective post-emergence control of common oats (*Avena fatua*), pulpit (*Bromus diandrus*), haygrass (*Bromus japonicus*), Cape twin (*Emex australis*), small seed canary (*Phalaris minor*)* and ramenas (*Raphanus raphanistrum*) in wheat. * Variable control sometimes occurs.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Pallas[®] 45 OD contains pyroxulam (Harmful) • Reg. No. L8676 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Pallas[®] 45 OD is a member of the triazolopyrimidine group of herbicides which has the ALS (Acetolactate synthase) inhibitory mode of action. HRAC Group B / WSSA Group 2 herbicide. Other HRAC Group B / WSSA Group 2 herbicides are Derby[®] 175 SC (L6781) and Broadstrike[®] 800 WG (L6180).



GETTING THE BEST FROM PALLAS[®] 45 OD

When temperatures are between 8°C - 25°C (applications can be made as low as 5°C, but control will then be slower).

When the crop and weeds are actively growing.

When the soil is moist.

With the addition of an adjuvant such as Break-thru at 100 ml/ha, which can increase the effectiveness of Pallas[®] 45 OD, especially under dry conditions.



COMPATIBILITY

Pallas[®] 45 OD, in combination with an adjuvant, can be mixed with ONE of Derby[®] 175 SC or MCPA[™] 400 SL or Dimetoate[™] 400 EC or manganese sulfate OR zinc oxide. Do NOT use multiple trace elements or foliar nutrient formulations containing more than two trace elements in tank mixtures with Pallas[®] 45 OD.



KEY ADVANTAGES

- 1 Excellent control of common wild oats and other weeds as listed on the label, resulting in increased yield and profit.
- 2 Excellent control of a range of other important grass weeds as well as key broadleaf weeds, leading to a reduction in weed build up.
- 3 A wide application window, which allows spraying during favourable weather conditions.

GROUND & AERIAL APPLICATION

**CROP:**
WHEAT

Western, Southern and Eastern Cape regions and irrigated areas of the summer rainfall region.

**RATE/ha:**
440 mℓ Pallas® 45 OD +
Adjuvant

MINIMUM SPRAY VOLUME: 200 ℓ/ha

**CROP:**
WHEAT

Western, Southern and Eastern Cape regions

**RATE/ha:**
440 mℓ Pallas® 45 OD + 50 mℓ
Derby® 175 SC + Adjuvant

MINIMUM SPRAY VOLUME: 200 ℓ/ha

**REMARKS:**

Apply between 2-3 leaf stage of the wheat crop until the 2-nodes stage when the weeds are in the seedling stage (2-4 leaves). Pallas® 45 OD herbicide spray techniques should ensure thorough coverage of weeds to achieve effective control. Weed plants screened by a dense stand of wheat and/or other weeds causing inhibited spray coverage may be poorly controlled, consider this aspect when deciding on spray application timing. Weeds germinating after application of Pallas® 45 OD will not be controlled as the product has no strong soil residual effect.

WITHOLDING PERIOD FOR FOLLOW-UP CROPS

Few restrictions on follow-up crops, which give producers flexibility in crop rotation. Test strips of the desired follow-up crop should be planted and checked for germination and emergence for any abnormal growth to determine whether the follow-up crop can be cultivated successfully.

THE FOLLOWING WITHOLDING PERIODS BETWEEN APPLICATION AND HARVEST / GRAZING APPLY:

CROP	MONTHS
Wheat, barley, oats, rye and triticale, lupins and canola	9
All other crops	12



WARNINGS

APPLICATIONS SHOULD BE AVOIDED:

- In cold, wet conditions - plan applications according to weather forecasts to avoid temperatures below 5°C for 24 hours after application.
- In drought conditions.
- In waterlogged soils.

WEEDS
CONTROLLED BY
PALLAS® 45 OD:

Pallas® 45 OD

HERBICIDE

Common wild oats

Avena fatua

Emex dubbeltjie

Emex australis

Japanese brome

*Bromus japonicus****

**Variable control of *Phalaris minor* may be expected.

***Where ALS resistant *Bromus* spp. and/or ALS resistant *Raphanus raphanistrum* occur, poor control can be expected.

Little seeded canary grass

*Phalaris minor***

Ripgut brome

*Bromus diandrus****

Wild radish

*Raphanus raphanistrum****

PALLAS® 45 OD + DERBY® 175 SC

Bush stinging nettle

Urtica urens

Cape marigold

Arctotheca calendula

Clovers

Medicago spp./*Trifolium* spp.

Common wild oats

Avena fatua

Emex dubbeltjie

Emex australis

Japanese brome

*Bromus japonicus****

Little seeded canary grass

*Phalaris minor***

Pimpernel

Anagallis arvensis

**Variable control of *Phalaris minor* may be expected.

***Where ALS resistant *Raphanus raphanistrum* and/or ALS resistant *Bromus* spp. occur, poor control can be expected. The addition of 1,0 ℓ/ha of MCPA 400 SL to the mixture at the correct wheat stage may improve control of *Raphanus raphanistrum*.

Prostrate knotweed

Polygonum aviculare

Ripgut brome

*Bromus diandrus****

Small mallow

Malva parviflora

Volunteer lupins

Lupinus angustifolius

Wild radish

*Raphanus raphanistrum****

NEW
PRODUCT



Pixxaro[®] 266 EC

Arylex[®] active

HERBICIDE

Pixxaro[®] 266 EC
Arylex[®] active

HERBICIDE



16.25 g/ℓ Arylex[®] (halauxifen-methyl)
250 g/ℓ Fluroxypyr

Pixxaro[®] 266 EC is an emulsion concentrate herbicide for pre-plant burndown of broadleaf weeds on fallow lands and selective early post-emergence control of broadleaf weeds in wheat and barley.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Pixxaro[®] 266 EC contains Arylex[®] (halauxifen-methyl) and fluroxypyr (Caution) • Reg. No. L11191 | Act No. 36 of 1947








MODE OF ACTION & CHEMICAL GROUP

Pixxaro[®] 266 EC is a mixture of two synthetic auxin-type herbicides (HRAC group O, WSSA group 4) which controls challenging broadleaf weeds by disrupting normal plant growth. The synthetic auxins mimic indole-3-acetic acid (IAA), an integral plant hormone affecting cell growth, development, and tropism.



NOTEWORTHY FEATURES

-  Effective post-emergence control of many common and economically damaging broadleaf weeds in cereals and barley.
-  Low use rates result in low environmental load.
-  Alternative mode of action to help manage resistant weed biotypes.
-  Rapid degradation in soil and plant tissues allows crop rotation flexibility.
-  Favourable environmental and toxicology profile.



GETTING THE BEST FROM PIXXARO[®] 266 EC

Weed stage; Seedlings to 6-leaf growth stage.

Weeds should also be actively growing under moist conditions.

Ensure thorough spray coverage of target weeds.

When applied as a post-emergence treatment Pixxaro[®] 266 EC should be applied prior to crop growth reaching a density, which would inhibit effective coverage of the weeds.

GROUND APPLICATION**CROP:**

Wheat | Barley | Fallow Land (Cereals)

**RATE/ha:**

Wheat	500 ml/ha
Barley	400 ml/ha
Fallow Land	500 ml/ha

CAN BE APPLIED ON ITS OWN OR IN A TANK MIXTURE FOR FALLOW LANDS. APPLY WITH A MEDIUM OR HIGH-VOLUME SPRAYER CAPABLE OF ADEQUATE COVERAGE AND EVEN DISTRIBUTION. BEST RESULTS ARE OBTAINED USING FLAT FAN SPRAY NOZZLES AND ENSURE THOROUGH COVERAGE OF WEEDS AT 200 l WATER/ha TO ACHIEVE EFFECTIVE CONTROL.

**APPLICATION TYPE: FOLIAR**

Apply post-emergence on actively growing weeds
- seedlings to 6-leaf growth stage.

**REMARKS:**

Pixxaro® 266 EC inhibits growth of susceptible plants. Visible symptoms may occur within 2-4 weeks under ideal growing conditions and up to 6-8 weeks under adverse conditions (prolonged periods of extremes in temperature or moisture).

**COMPATIBILITY**

Pixxaro® 266 EC is compatible with the following herbicides in a tank mixture for expanded spectrum broadleaf weed control on fallow lands (only):

2,4-D AMINE 480 SL	L3619	(480 g 2,4-D Amine)
2,4-D ESTER 500 EC	L3617	(500 g 2,4-D Ester)
GLEAN® 75 DF	L1672	(750 g chlorsulfuron)
MAMBA™ DMA 480 SL	L8388	(480 g glyphosate)
MCPA 400 SL	L3616	(400 g MCPA)

**WARNINGS**

Weeds screened off by a dense stand of the crop and/or other weeds causing inhibited spray coverage, may be poorly controlled. Consider this aspect when deciding on spray application timing.

Weeds germinating after application of Pixxaro® 266 EC will not be controlled as it has no strong soil residual activity. Degree of control obtained, and duration of effect depends on weed species, weed size, growing conditions at and following the period of application.

WEEDS CONTROLLED BY PIXXARO® 266 EC

Pixxaro® 266 EC
Arylex® active

HERBICIDE

Pixxaro® 266 EC controls a wide spectrum of challenging broadleaf weeds

Common pigweed*Amaranthus hybridus***Cape weed***Arctotheca calendula***Shepherd's purse***Capsella bursa-pastoris***White goosefoot***Chenopodium album***Carrot weed***Coronopus didymus***Musk heron's bill***Erodium moschatum***Small-flowered quickweed***Galinsoga parviflora****Small mallow***Malva parviflora***Narrow-leaved ribwort***Plantago lanceolata***Starvation Senecio***Senecio consanguineus***Common wild mustard***Sisymbrium thellungii***Common chickweed***Stellaria me***Flax-leaf fleabane***Conyza bonariensis*****Horseweed fleabane***Conyza canadensis***

*Variable control can be expected.

** May be controlled with tank mixtures of Glyphosate when applied on fallow lands.

PRE-HARVEST INTERVALS

FOLLOW CROP	PERIOD
Barley	Allow 95 days between application and harvesting.
Wheat	Allow 91 days between application and harvesting.

The periods specified above will only be valid if favourable soil moisture and temperature conditions prevail to promote more rapid breakdown of Pixxaro® 266 EC by microbial activity.

RE-CROPPING PERIODS

FOLLOW CROP	PERIOD
Barley, canola, maize, oats, sorghum, soybeans, sunflowers, wheat	14 days
Cotton	30 days
Dry beans, groundnuts, lucerne, peas	9 months
For all other follow crops not listed a replanting period of at least 24 months must be observed	

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



Quelex™ 200 WG

Arylex® active

HERBICIDE

Quelex™ 200 WG
Arylex® active
HERBICIDE



100 g/kg Arylex® (halauxifen-methyl)
100 g/kg Florasulam

Quelex™ 200 WG is a water dispersible granule herbicide for early post-emergence broadleaf weed control in wheat in the Western Cape and the summer rainfall region.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Quelex™ 200 WG contains Arylex® (halauxifen-methyl) and florasulam (Caution) • Reg. No. L10759 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Quelex™ 200 WG is a mixture of **Arylex®** (halauxifen-methyl), a systemic auxin-type herbicide (HRAC Group O / WSSA Group 4) and Florasulam, an ALS (AcetoLactate Synthase) enzyme inhibitor-type herbicide (HRAC Group B / WSSA Group 2). The 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 QUELEX™ 200 WG

Apply between 2-leaf stage and end tillering of the crop.

Ensure thorough coverage of weeds to achieve effective control.

Best results are obtained from applications made to young, actively growing seedlings (between 2 to 6-leaf stage).

Warm, moist growing conditions promote active weed growth and enhance the activity of **Quelex™ 200 WG** by allowing maximum foliar uptake and activity.

Only weeds emerged at the time of treatment will be controlled. Weeds germinating after application will not be controlled.

Do not apply to crops that are stressed by severe weather conditions, drought, waterlogging, nutrient deficiency, disease, insect damage or carry-over herbicide residues.

Only apply ONCE per season when a specific weed is targeted.

Mix with clean water and apply as a uniform broadcast spray by means of ground application.

Best results are obtained using flat fan-type spray nozzles and applying a minimum spray volume of 200 litres water per hectare.

Rainfast within 1 hour of application.

APPLICATION

GROUND APPLICATION



CROP:
Wheat



RATE/ha:
50g Quelex™ 200 WG
MINIMUM SPRAY VOLUME: 200 l/ha



REMARKS:
Apply between 2-leaf stage and end of tillering of the crop when weeds are small and actively growing (2-6 leaf stage).



KEY ADVANTAGES

- 1 Control of key broadleaf weeds.
- 2 Applied early post-emergence, to the main flush of actively growing broadleaf weeds.
- 3 **Quelex™ 200 WG** inhibits growth of susceptible weeds. Visible symptoms of dying plants may occur within 2-4 weeks under ideal growing conditions and up to 6-8 weeks under adverse conditions (prolonged periods of extremes in temperature or moisture).



WARNINGS

- Do not enter treated area until spray deposit has dried unless wearing protective clothing.
- Allow 42 days between application and grazing by livestock.
- Triple-rinse empty container before destroying the container in a safe manner and do not re-use it for any other purpose.

BROADLEAF WEEDS CONTROLLED BY QUELEX™ 200 WG:

Quelex™
200 WG
Arylex® active

HERBICIDE

Cape weed

Arctotheca calendula

Clovers

Medicago spp

Musk heron's bill

*Erodium moschatum***

Spiny Emex

*Emex australis***

Chickweed

*Stellaria media****

Fumitory

Fumaria officinalis

Prostrate knotweed

*Polygonum aviculare***

White goosefoot

Chenopodium album

Climbing knotweed

*Polygonum convolvulus***

Goose-daisy

Cotula turbinata

Small mallow

Malva parviflora

Wild radish

*Raphanus raphanistrum****

**Variable control may be expected.

***Where ALS resistant *Raphanus raphanistrum* and *Stellaria media* occur, poor control can be expected.

WAITING PERIOD FOR FOLLOW-UP CROPS

CROP	MONTHS
Barley, oats, wheat	1
Cotton, maize, potatoes, sorghum, sunflowers	5
Canola, lupins, peas	9
Cotton, dry beans, groundnuts, soybeans	14

For all other crops, a replanting interval of at least 24 months must be observed, preceded by a test planting.



Starane[®] 200 EC

HERBICIDE

Starane[®] 200 EC

HERBICIDE



200 g/ℓ Fluroxypyr

Starane[®] 200 EC is a systemic emulsifiable concentrate herbicide for the control of volunteer potatoes and woody plants as listed on the label for forestry, grass pastures, conservation and industrial areas.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Starane[®] 200 EC contains fluroxypyr (Caution) • Reg. No. L4918 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Starane[®] 200 EC is part of the pyridine family of herbicides. It is rapidly absorbed through the foliage and is systemic in the phloem and xylem. It acts as a synthetic auxin and symptoms are similar to other growth regulators. HRAC Group O / WSSA Group 4 herbicide. Other HRAC Group O / WSSA Group 4 herbicides are Lontrel™ 100 SL (L4919) and MCPA™ 400 SL (L3616).



GETTING THE BEST FROM STARANE[®] 200 EC

When volunteer potatoes are in the 6-leaf to flowering stage.

Only potatoes present during application will be controlled.

In 300 ℓ/ha spray mixture.

Apply as a directed spray in maize when the maize is at least 50 cm high.

Apply in wheat when the crop is in the 3-leaf to flag leaf stage.

Apply in eragrostis when the crop is in the 3-leaf to early flower stage.

APPLICATION



CROP:
Wheat



RATE/ha:
1.25 ℓ Starane® 200 EC
MINIMUM SPRAY VOLUME: 200 ℓ/ha



REMARKS:
Wheat should be from the 3-leaf to before flag leaf emergence stage (Zadoks 13–33) when application is made.



KEY ADVANTAGES

- 1 Minimal transfer in soil (half-life in soil of 1–4 weeks).
- 2 Rain after application will have no effect on efficacy provided the spray residue has dried on the targeted plants.
- 3 Can be applied at temperatures as low as 8°C.

WAITING PERIOD FOR FOLLOW-UP CROPS

Allow 3 days between last application and grazing of treated areas.

Allow 4 months between last application and the planting of a broadleaf crop.



WARNINGS

- Do not apply with a mineral oil-based aid to wheat, maize and Eragrostis.
- Do not apply in the calyx or directly over maize (See note on directed spray above).

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

Starane®
200 EC

HERBICIDE

Keep Growing



Tarzec® 320 WG

Arylex® active

HERBICIDE

Tarzec® 320 WG
Arylex® active
HERBICIDE



70 g/kg Arylex® (halauxifen-methyl)
250 g/kg Pyroxsulam

Tarzec® 320 WG is a water dispersible granule herbicide for selective, early post-emergence control of broadleaf weeds and some annual grasses in wheat in the Western Cape and irrigated areas in the summer rainfall region.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Tarzec® 320 WG contains Arylex® (halauxifen-methyl) and Pyroxsulam (Caution) • Reg. No. L10760 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Tarzec® 320 WG is a combination of Arylex® (halauxifen-methyl), a synthetic auxin-type herbicide (HRAC Group O / WSSA Group 4) and pyroxsulam, an ALS (AcetoLactate Synthase) enzyme inhibiting herbicide (HRAC Group B / WSSA Group 2). This product controls plants by disrupting normal 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 TARZEC® 320 WG

Apply between 2-leaf stage and end tillering of the crop.

Ensure thorough coverage of weeds to achieve effective control.

Best results are obtained from applications made to young weeds at 2-leaf seedling stage but before they are beyond the 4-leaf stage.

Warm, moist growing conditions promote active weed growth and enhance the activity of Tarzec® 320 WG by allowing maximum foliar uptake and activity.

Only weeds emerged at the time of treatment will be controlled. Weeds germinating after application will not be controlled.

Optimum application temperature is between 8–25°C, but treatments can be done at temperatures as low as 5°C. Weed control may take longer under colder conditions.

On fields with high grass weed populations a suitable “burndown” herbicide treatment prior to planting is recommended to reduce the later in-crop weed pressure and competition.

Only apply ONCE per season when a specific weed is targeted.

Mix with clean water and apply as a uniform broadcast spray by means of ground application.

Best results are obtained using flat fan-type spray nozzles and applying a minimum spray volume of 200 litres water per hectare.

CONTINUED ON NEXT PAGE

The activity of **Tarzec® 320 WG** is increased by the use of an adjuvant (at the recommended dose). It provides more constant control of susceptible weeds under various environmental conditions. The use of an adjuvant can also improve the efficacy against some weeds that are moderately susceptible. An adjuvant is especially beneficial under dry conditions

WEEDS CONTROLLED BY TARZEC® 320 WG:

Tarzec®
320 WG
Arylex® active

HERBICIDE

BROADLEAF WEEDS

Cape weed

*Arctotheca calendula****

White goosefoot

Chenopodium album

Wild radish

*Raphanus raphanistrum****

Prostrate knotweed

Polygonum aviculare

Spiny Emex

*Emex australis***

*** Where ALS resistant weeds occur, variable control can be expected.

GRASSES

Common wild oats

Avena fatua

Japanese brome

*Bromus japonicas****

Little seeded canary grass

*Phalaris minor***

Ripgut brome

*Bromus diandrus****

** Variable control may be expected.

*** Where ALS resistant Bromus spp. occur, variable control can be expected.

WAITING PERIOD FOR FOLLOW-UP CROPS

CROP	MONTHS
Barley, oats, wheat	1
Cotton, dry beans, groundnuts, potatoes, sorghum, soybeans	5
Canola, lupins, peas	9
Maize, sunflowers	14

For all other crops, a replanting interval of at least 24 months must be observed, preceded by a test planting.

APPLICATION

GROUND APPLICATION



CROP:
Wheat



RATE/ha:
80g Tarzec® 320 WG
MINIMUM SPRAY VOLUME: 200 l/ha



REMARKS:

Apply between 2-leaf stage until the 2-node stage of the crop when weeds are in the seedling stage and actively growing (2-4 leaf stage).



KEY ADVANTAGES

- 1 Since **Tarzec® 320 WG** has two different modes of action, resistance is less likely to develop.
- 2 Applied early post-emergence, to the main flush of actively growing broadleaf weeds.
- 3 **Tarzec® 320 WG** inhibits growth of susceptible weeds. Visible symptoms of dying plants may occur within 2-4 weeks under ideal growing conditions and up to 6-8 weeks under adverse conditions (prolonged periods of extremes in temperature or moisture).
- 4 Cross-spectrum control of key broadleaf and grass weeds in a single spray operation.
- 5 Safe to crops if used as directed.



WARNINGS

- Do not enter treated area until spray deposit has dried unless wearing protective clothing.
- Allow 7 days between application and grazing by livestock.
- Not to be used as an aerial application.
- Under certain conditions Tarzec® 320 WG may cause some senescence and/or yellowing of lower/older leaves of the crop but will have no significant effect on final crop yield.
- Avoid applying at temperatures below 5°C or when night-time temperatures are below freezing, or when weather conditions may cause slow drying conditions.
- Do not apply to crops that are stressed by severe weather conditions such as cold weather, heavy rain or the risk of freezing temperatures, drought, waterlogging, nutrient deficiency, disease, insect or nematode damage or carry-over herbicide residues.

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

CEREALS GUIDE EDITION 4

FOR MORE INFORMATION CONTACT THE REGISTRATION HOLDER:

Dow AgroSciences Southern Africa (Pty) Ltd Reg. No. 1967/007147/07
Paarl +27 (0) 21 860 3620 • **Centurion** +27 (0) 12 683 5700 • **Local Emergency No:** +27 (0) 82 895 0621 (SA only) • **24 Hour Emergency Tel No:** +32 3 575 5555
Maxwell Office Park, Magwa Building, Ground Floor, Magwa Crescent, 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: 2,4-D Amine™ 480 SL contains 2,4-D Amine (Harmful) | Reg. No. L3619 | Act No. 36 of 1947 • 2,4-D Ester™ 500 EC contains 2,4-D Ester (Harmful) | Reg. No. L3617 | Act No. 36 of 1947 • Acanto® 250 SC contains picoxystrobin (Caution) | Reg. No. L8233 | Act No. 36 of 1947 • Aubaine® 518 SC contains chlorotoluron (*Urea*) and isoxaben (*Benzamide*) (Harmful) | Reg. No. L1069 | Act No. 36 of 1947 • Broadstrike® 800 WG contains flumetsulam (Caution) | Reg. No. L6180 | Act No. 36 of 1947 • Brush-Off® contains metsulfuron methyl (Caution) | Reg. No. L4535 | Act No. 36 of 1947 • Derby® 175 SC contains florasulam and flumetsulam (Caution) | Reg. No. L6781 | Act No. 36 of 1947 • Flexidor® 500 SC contains isoxaben (Caution) | Reg. No. L5011 | Act No. 36 of 1947 • Gallant® SUPER contains Haloxyfop-R Methyl Ester (Caution) | Reg. No. L4962 | Act No. 36 of 1947 • Kerb® FLO 400 SC contains propyzamide (Caution) | Reg. No. L4065 | Act No. 36 of 1947 • Lontrel™ 100 SL contains clopyralid (Caution) | Reg. No. L4919 | Act No. 36 of 1947 • Mamba™ 360 SL contains glyphosate (Caution) | Reg. No. L4817 | Act No. 36 of 1947 • Mamba™ DMA 480 SL contains glyphosate (Caution) | Reg. No. L8388 | Act No. 36 of 1947 • Mamba® MAX 480 SL contains glyphosate (Caution) | Reg. No. L7714 | Act No. 36 of 1947 • MCPA® 400 SL contains MCPA (Harmful) | Reg. No. L3616 | Act No. 36 of 1947 • Pallas® 45 OD contains pyroxsulam (Harmful) | Reg. No. L8676 | Act No. 36 of 1947 • Pixxaro® 266 EC contains Arylex® (*halauxifen-methyl*) and fluroxypyr (Caution) • Reg. No. L1191 | Act No. 36 of 1947 • Quelex™ 200 WG contains Arylex® (*halauxifen-methyl*) and florasulam (Caution) | Reg. No. L10759 | Act No. 36 of 1947 • Starane® 200 EC contains fluroxypyr (Caution) | Reg. No. L4918 | Act No. 36 of 1947 • Tarzac® 320 WG contains Arylex® (*halauxifen-methyl*) and pyroxsulam (Caution) | Reg. No. 10760 | Act No. 36 of 1947

™ = Trademarks of Corteva Agriscience and its affiliated companies. © 2021 Corteva.

 **CortevaZA** on Facebook

 **CortevaAME** on Twitter

 **@Corteva** on Instagram

ARYSTA LIFESCIENCE SOUTH AFRICA (PTY) LTD | REG. NO. 2009/07978/07 | SUBSIDIARY OFFICE PARK, OFF DOUGLAS SAUNDERS DRIVE, LA LUCIA RIDGE, SOUTH AFRICA, 4019; Dimethoate 400 EC contains dimethoate (Toxic) | Reg. No. L5367 | Act No. 36 of 1947 • Dimethoate is a registered trademark of Arysta Lifescience South Africa (Pty) Ltd.
BAYER® (PTY) LTD. | REG. NO. 1968/07192/07 | PO BOX 343, ISANDILO, 5600, SOUTH AFRICA; Bioroll® Super contains bromoxynil (Harmful) | Reg. No. L5167 | Act No. 36 of 1947 • Bioroll® Super contains bromoxynil (Harmful) | Reg. No. L5168 | Act No. 36 of 1947 • Bioroll® ES contains bromoxynil (Harmful) | Reg. No. L3503 | Act No. 36 of 1947 • Follinor® 800 SL contains ornethoate (Toxic) | Reg. No. L2316 | Act No. 36 of 1947 • Hoxton® 35 EC contains diclofop methyl | Reg. No. L3566 | Act No. 36 of 1947 • Raven® 5100 EC contains fenoxaprop-p-ethyl and metolachlor-dimethyl (Caution) | Reg. No. L5187 | Act No. 36 of 1947 • Buxini® and Purvo® are registered trademarks of Bayer® (Pty) Ltd.
FMC CHEMICALS (PTY) LTD: Gleam® 75 CF | L3672 | Act No. 36 of 1947 • Trend 90 | Reg. No. L5077 | Act No. 36 of 1947 • Gleam and Trend are registered trademarks of FMC Chemicals (Pty) Ltd.
H&R SOUTH AFRICA SALES (PTY) LTD. | REG. NO. 2004/00399/07 | PO BOX 21676, BLUFF 4026; H&R Crop Oil contains mineral oil (Caution) | Reg. No. L5082 | Act No. 36 of 1947 • H&R Crop Oil is a registered trademark of H&R South Africa Sales (Pty) Ltd.
MONSANTO SOUTH AFRICA (PTY) LTD. | REG. NO. 68/0485/07 | PO BOX 69933, BRYANSTON, 2028; Monitor® 75 WG contains sulfentrazone (Caution) | Reg. No. L2003 | Act No. 36 of 1947 • Monitor is a registered trademark of Monsanto South Africa (Pty) Ltd.
SYNGENTA® SOUTH AFRICA (PTY) LTD. | REG. NO. 1998/01326/07 | THORNHILL OFFICE PARK 10, 76 ROSSIGER RD, VORWA VALLEY, MIDRAND, 1686; Topik® 240 EC contains diodotolopropargyl (Caution) | Reg. No. L4250 | Act No. 36 of 1947 • Topik® is a registered trademark of Syngenta® South Africa (Pty) Ltd.
VILLO CROP PROTECTION (PTY) LTD. | REG. NO. 1992/002674/07 | PO BOX 10413, ASTON MANOR, 1630; Dimeton EC contains dimeton-S-methyl (Harmful) | Reg. No. L4952 | Act No. 36 of 1947 • Proxazole 250 EC contains propanilazole (Harmful) | Reg. No. L2561 | Act No. 36 of 1947 • Propanilazole 250 EC contains propanilazole (Harmful) | Reg. No. L2506 | Act No. 36 of 1947 • Dimeton, Proxazole and Propanilazole are registered trademarks of Viljo Crop Protection (Pty) Ltd.