



WINFIELD[®] UNITED

Canola Crop Manual



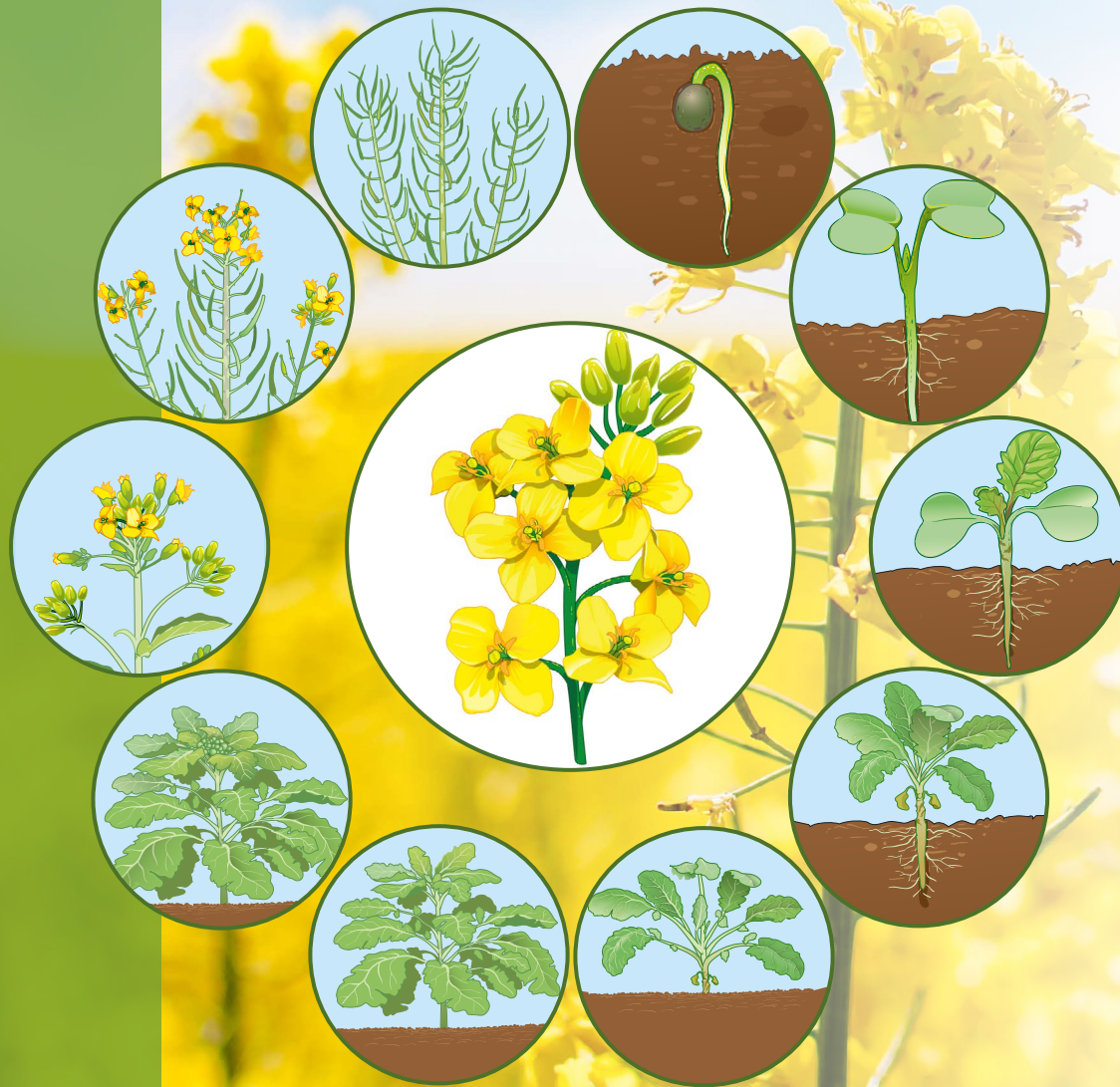
WINFIELD[®] UNITED

Canola Crop Manual

Our comprehensive portfolio of Canola products is provided in a quick reference guide. The aim is to communicate a summary positioning in crop phenological stage (timing of application), features of the product, do's and don'ts, and use rates in an easy one-page format.

Note that crop protection advisors and farmers must always comply with the recommendations on the official label according to the Act (Act 36 of 1947).

Integrated crop management is the most important and sustainable approach to designing and managing crop protection systems. It is a careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimise risks to human health and the environment.



Canola Growth Stage Spray Programme

Description of Stages			Pre plant Burndown	Planting	Germination and emergence	Vegetative growth 2-3	Vegetative growth 4-6	Stem elongation and bud forming	Flowering stage 20-30%	Pod Development	Seed Development
HERBICIDES	BROAD LEAF AND ANNUAL GRASSES		SLASH 710 SG / GLYGRAN 710 SG								
	PRE-EMERGENT GRASS			TRIFLURALIN 480 EC							
	POST EMERGENT GRASS	OPTION 1				SERIES 240 EC	SERIES 240 EC				
		OPTION 2				SUCCESSION 225 EC	SUCCESSION 225 EC				
INSECTICIDES	RED LEGGED SAND MITE				DIMETHOATE 400 EC	DIMETHOATE 400 EC					
	DIAMANT BACK MOTH					ADDITION 150 SC	ADDITION 150 SC	ADDITION 150 SC			
	BOLLWORM	OPTION 1								LINEAR 350 EC	LINEAR 350 EC
		OPTION 2				ADDITION 150 SC	ADDITION 150 SC	ADDITION 150 SC			
	CABBAGE APHID	OPTION 1				TRIVIA 500 WDG	TRIVIA 500 WDG				
		OPTION 2				MAINTAIN 200 SP	MAINTAIN 200 SP	MAINTAIN 200 SP	MAINTAIN 200 SP		
FUNGICIDES	BLACKLEG	OPTION 1					SANTANA 480 SC	SANTANA 480 SC			
		OPTION 2					FACULTY TOP 250 SC	FACULTY TOP 250 SC			
	SCLEROTINIA	OPTION 1							SANTANA 480 SC		
		OPTION 2							FACULTY TOP 250 SC		
ADJUVANTS			VELOCITY DRYMAX			VELOCITY DRYMAX	VELOCITY DRYMAX				
					VILLA 51	VILLA 51	VILLA 51	VILLA 51			
						CHARGE	CHARGE	CHARGE			
			CLASS ACT NG								
										COMMODOBUFF	COMMODOBUFF
						DIRECT	DIRECT	DIRECT	DIRECT		
			INTERLOCK						INTERLOCK		

* Please note that programme is adjusted according to season and IPM principles.
* This programme does not necessarily represent all the products available and must be adjusted to season accordingly.
* Always read the label before use.



INSECTICIDE



Trade name	Active ingredient	Target species
	indoxacarb (oxadiazine)	Larvae of African bollworm, diamond back moth
	dimethoate (organophosphate)	Russian aphid, green and brown aphids
	lambda-cyhalothrin (pyrethroid) and chlorpyrifos (organo-phophate)	African bollworm
	acetamiprid (acetamidine)	Brown ear aphid, common wheat aphid, birdcherry-oat aphid
	pymetrozine (pyridine azomethine)	Cabbage aphid

↑ [Click on product links above to get to more information on this product.](#)

ADDITION 150 SC

Active ingredient: Indoxacarb (oxadiazine) 150g/ℓ
(Reg. No. L9146, Act 36 of 1947)

A suspension concentrate stomach and contact insecticide for the control of African bollworm (*Helicoverpa armigera*) and Diamond back moth (*Plutella xylostella*) in Canola.



Features

- ADDITION 150 SC is an IRAC group code 22 insecticide.
- PHI of 56 days.
- Preventative stomach and contact insecticide.
- Acts by inhibition of sodium ion entry into nerve cells, which results in death of pest within 1 to 2 days.
- Acts as a larvicide through ingestion, as well as cuticular absorption.
- Once spray mixture has dried, ADDITION 150 SC will not wash off through rainfall or irrigation.

Do's and don'ts

- Apply preventatively/correctively as required in 300 to 600 litres water per hectare and ensure thorough coverage.
- Use the higher dosage rate when applied correctively.
- Use the lower rate for subsequent applications when applied in a regular programme.
- Apply a block application of 2 to 3 consecutive ADDITION 150 SC applications, and then switch to products with other modes of action.
- The addition of an organosilicon surfactant (such as Charge) is recommended to improve coverage.



INSECTICIDE



USE RATE†

Larvae of African bollworm:

- Apply 250 to 300 mℓ / ha ADDITION 150 SC.

Larvae of Diamond back moth:

- Apply 250 mℓ / ha ADDITION 150 SC



REGISTRATION DETAILS†

ADDITION 150 SC

Active ingredient: indoxacarb
(oxadiazine) 150g/ℓ
Reg. No. L9146, Act 36 of 1947
(harmful)

Registration holder:

Villa Crop Protection (Pty) Ltd.
Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630.
Tel. (011) 396-2233



PACKAGING

1 ℓ

ALWAYS READ THE LABEL



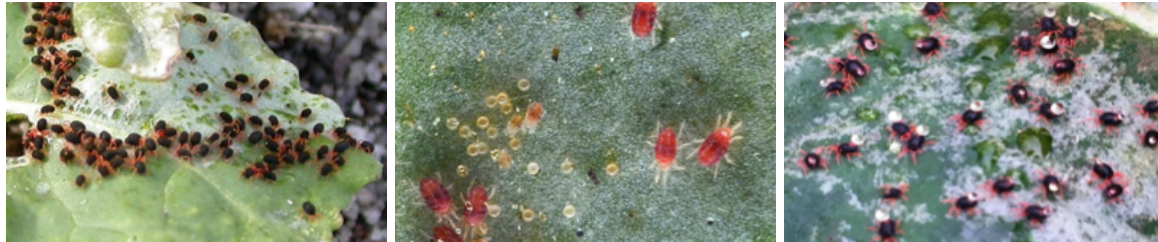
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**WINFIELD®
UNITED**

DIMETHOATE 400 EC

Active ingredient: Dimethoate (organophosphate) 400 g/ℓ
(Reg. No. L8455, Act 36 of 1947)

An emulsifiable concentrate systemic and contact insecticide for the control of red-legged sand mites on canola.



Features

- DIMETHOATE 400 EC is an IRAC group code 1B insecticide.
- DIMETHOATE 400 EC is compatible with PARATHION 500 EC, VILLA 51, INTERLOCK® and most neutral pesticides.
- DIMETHOATE 400 EC is not compatible with alkaline compounds.
- Prevent drift through the use of a suitable drift retardant (i.e. INTERLOCK®) so as to limit off target exposure to other crops, grazing areas, rivers, dams or water source

Do's and don'ts

- DIMETHOATE 400 EC should not be applied under conditions of high temperature.
- Apply in a minimum of 200 to 250 ℓ water per hectare.
- DO NOT spray on bare ground.
- Apply as soon as pest appears, usually from crop emergence up until the 3rd true leaf has formed.
- Apply only if crop is growing actively.
- Apply ONLY once.
- Add a suitable drift retardant for increased deposition on to the target and limit any off-target drift

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INSECTICIDE



USE RATE†
- 150 to 250 mℓ / ha PLUS 0.05 %
VILLA 51



REGISTRATION DETAILS†
DIMETHOATE 400 EC
Active ingredient: dimethoate
(organophosphate) 400 g/ℓ
Reg. No. L8455, Act 36 of 1947
(toxic)

Registration holder:
Universal Crop Protection (Pty) Ltd.
Reg. No. 1983/008184/07
PO Box 801, Kempton Park, 1620.
Tel. (011) 396-2233

INTERLOCK
Active ingredient: Vegetable oils, polyoxy
ethylene fatty acid ester 880 g/ℓ
Reg. No. L10254, Act 36 of 1947
(caution)

Registration holder:
Winfield Solutions Registration Holdings (Pty)
Ltd.
Co. Reg. No. 2015/312008/07
PO Box 10413, Aston Manor, 1630
Tel. (011) 396-2233

VILLA 51
Active ingredient: Isotridecanol
(alkylpolyethylene glycol ether) 918 g/ℓ
Reg. No. L8050, Act 36 of 1947
(harmful)

Registration holder:
Villa Crop Protection (Pty) Ltd.
Co. Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630.
Tel. (011) 396-2233



PACKAGING
5 ℓ, 20 ℓ



**WINFIELD®
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LINEAR 350 EC

Active ingredient: lambda-cyhalothrin (pyrethroid) 12 g/ℓ
& chlorpyrifos (organo-phosphate) 338 g/ℓ
(Reg. No. L8602, Act 36 of 1947)

An emulsifiable concentrate contact and stomach insecticide for the control of African bollworm (*Helicoverpa armigera*) in Canola.



Features

- LINEAR 350 EC is an IRAC group code 3A + 1B insecticide.
- Two active ingredients with different modes of action.
- LINEAR 350 EC is a formulated insecticide mixture with a contact, stomach and respiratory action.
- Excellent knockdown effect.
- The respiratory effect of chlorpyrifos assists with the control of larvae.

Do's and don'ts

- Ensure thorough coverage and wetting of this area.
- Add a Villa approved surfactant.
- Apply at first signs of infestation and ensure good coverage.
- A further application may be necessary if unacceptable levels of control have been obtained.

ALWAYS READ THE LABEL



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INSECTICIDE



USE RATE[†]

African bollworm:

- Apply 500 mL/ha LINEAR 350 EC



REGISTRATION DETAILS[†]

LINEAR 350 EC

Active ingredient: lambda-cyhalothrin (pyrethroid) 12 g/ℓ & chlorpyrifos (organo-phosphate) 338 g/ℓ
Reg. No. L8602, Act 36 of 1947
(harmful)

Registration holder:

Villa Crop Protection (Pty) Ltd.
Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630.
Tel. (011) 396-2233



PACKAGING

5 ℓ

WINFIELD[®]
UNITED

MAINTAIN 200 SP

Active ingredient: Acetamiprid (acetamidine) 200 g/kg
(Reg. No. L9225, Act 36 of 1947)

A water-soluble powder systemic, contact and stomach insecticide for the control of Cabbage aphid (*Brevicoryne brassicae*) in Canola.



Features

- MAINTAIN 200 SP is an IRAC group code 4A insecticide.
- MAINTAIN 200 SP controls the cabbage aphid (*Brevicoryne brassicae*) in canola.
- MAINTAIN 200 SP is a systemic insecticide that acts on the central nervous system of insects through both contact action and ingestion (stomach action).
- MAINTAIN 200 SP translocates to the apical meristems in the plant (acropetal movement) protecting the new growth.
- Controls the pest even when hidden within the leaves.
- Rapid paralysis of the insect stops feeding rapidly and is followed by eventual death.
- Good residual activity results in a longer period of effective control.
- Low dosage rates required (50g/ha) for effective control.

Do's and don'ts

- Apply at first signs of infestation.
- Optimal results obtained if applied when the crops are actively growing.
- Do not apply after flowering.
- Do not apply on to crops as a foliar spray when honey bees are present.
- Do not alternate with insecticides with a similar mode of action.
- Integrate other control methods (chemical, cultural and biological) into insect control program to limit resistance development.
- DO NOT mix with triazole fungicides as bee toxicity is dramatically synergized.



INSECTICIDE



USE RATE[†]
- 50 g / ha + (50 ml / 100 l water)
VILLA 51



REGISTRATION DETAILS[†]
MAINTAIN 200 SP
Active ingredient: acetamiprid
(acetamidine) 200 g/kg
Reg. No. L9225, Act 36 of 1947
(caution)

VILLA 51
Active ingredient: Isotridecanol
(alkylpolyethylene glycol ether) 918 g/l
Reg. No. L8050, Act 36 of 1947
(harmful)

Registration holder:
Villa Crop Protection (Pty) Ltd.
Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630.
Tel. (011) 396-2233



PACKAGING
500gr, 1kg, 3kg

TRIVIA 500 WDG

Active ingredient: Pymetrozine (pyridine azomethine) 500 g/kg
(Reg. No. L9969, Act 36 of 1947)

A wettable dispersible granular systemic insecticide for the control of
Cabbage aphid (*Brevicoryne brassicae*) in Canola.



Features

- TRIVIA 500 WDG is an IRAC group code 9B insecticide.
- TRIVIA 500 WDG is an insecticide with a mode of action differing from most current insecticides.
- TRIVIA 500 WDG adversely affects the feeding of the aphid causing an immediate cessation of feeding.
- The insects stay alive for a few days after treatment, but are unable to feed and will die due to starvation.
- Toxicity towards birds, fish, earthworms, bacteria and bees is practically non-significant.
- TRIVIA 500 WDG will not have an adverse effect on natural predators.
- TRIVIA 500 WDG is especially suitable for inclusion in IPM programmes for control of sucking insects resistant to current insecticide.

Do's and don'ts

- Apply a single treatment when the pest is noticed.
- Apply in sufficient water, to ensure good coverage.
- If further control is required, apply an alternative registered remedy with a different mode of action.
- The addition of a non-ionic surfactant to the spray mixture is recommended.

ALWAYS READ THE LABEL

INSECTICIDE



USE RATE[†]

Cabbage aphid (*Brevicoryne brassicae*):

- Apply 400 g/ha + 50 ml / 100 l water

[Link](#)



REGISTRATION DETAILS[†]

TRIVIA 500 WDG
Active ingredient: pymetrozine
(pyridine azomethine) 500 g/kg
Reg. No. L9969, Act 36 of 1947
(caution)

Registration holder:

Villa Crop Protection (Pty) Ltd.
Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630.
Tel. (011) 396-2233



PACKAGING

1 kg





HERBICIDE



Trade Name	Active Ingredient	Target Species
	clethodim (cyclohexanedione)	Post-emergence grass weeds
	glyphosate (glycine) & glyphosate ammonium salt	Post-emergence grass weeds
	clethodim (cyclohexanedione) & haloxyfop-R-methyl ester	Post-emergence grass weeds
	trifluralin (dinitroaniline)	Pre-emergence grass control

↑ [Click on product links above to get to more information on this product.](#)

SERIES 240 EC

Active ingredient: Clethodim (cyclohexanedione) 240 g/ℓ
(Reg. No. L8913 / W130874, Act 36 of 1947)

A selective systemic herbicide for post-emergence control of grass weeds in canola as indicated.



Features

- SERIES 240 EC is an HRAC group code A herbicide.
- A selective systemic herbicide for post-emergence control of grass weeds.
- Rapidly absorbed.
- Quick translocation to the growing points of the plant.
- Growing point dies first followed by death of the whole plant.

Do's and don'ts

- Do not apply SERIES 240 EC to large areas of newly released cultivars, before consulting your local SERIES 240 EC representative or distributor, or prior to testing phytotoxicity.
- Apply only during moist conditions, when the weeds are growing actively.
- Do not apply to crop or weeds under stress conditions, as poor control or crop damage may occur.
- Rain or irrigation within one hour of application may require a follow up application.
- Always use in combination with the following adjuvants: DIRECT and VELOCITY DRYMAX.
- Allow at least four days after a SERIES 240 EC application before applying any other agrochemical treatment.
- Apply once the Canola has reached at least the 2 to 3 leaf stage, but not later than the 8-leaf growth stage or prior to the beginning of stem elongation.
- DO NOT apply if any flower buds are visible.



ALWAYS READ THE LABEL

HERBICIDE



USE RATE*

- 0.5 ℓ /ha PLUS Adjuvants
- Add 0.1 % DIRECT + 2.0 % VELOCITY® SUPER or 1.0 % VELOCITY® DRYMAX.



REGISTRATION DETAILS*

SERIES 240 EC
Active ingredient: Clethodim
(cyclohexanedione) 240 g/ℓ
Reg. No. L8913 / W130874,
Act 36 of 1947
(caution)

Registration holder:
Universal Crop Protection (Pty) Ltd.
Reg. No. 1983/008184/07
PO Box 801, Kempton Park, 1620.
Tel. (011) 396-2233

DIRECT

Active ingredient: Polyether-
polymethylsiloxane-copolymer 300 g/ℓ and
vegetable oil 650 g/ℓ
Reg. No. L8680, Act 36 of 1947
(caution)

VELOCITY-DRYMAX

Active ingredient: Ammonium sulphate 1000
g/kg
Reg. No. L9454, Act 36 of 1947
(caution)

Registration holder:
Villa Crop Protection (Pty) Ltd.
Co. Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630.
Tel. (011) 396-2233



PACKAGING
5 ℓ

SLASH 710 SG/GLYGRAN 710 SG

Active ingredient: glyphosate (glycine) 710 g ae/kg & glyphosate ammonium salt 780 g/kg
(Reg. No. L8449 L8450 (SLASH 710 SG), (GLYGRAN 710 SG),
Act 36 of 1947)

A water soluble granule, non-selective, systemic post-emergence herbicide with slight or no soil activity, for the control of perennial and annual weeds in canola.



Features

- GLYGRAN 710 SG is an HRAC group code G9 herbicide.
- Provides control of both annual and perennial grass and broad-leaf weeds.
- Uptake (absorption) is fast and cultivation, planting or other soil preparation practices can take place the day after application.
- On contact with the soil, glyphosate binds to the clay particles and is decomposed over time by the soil microbes.
- The product has no soil residual effect, therefore has no root uptake and is safe to follow-up crops after application.
- Wilting of weeds will be visible within the first week after application on annual weeds and total death occurs 14-21 days after application.

- Rain fast one hour after application on small actively growing annual weeds.
- Registered for use on glyphosate tolerant crops.
- Granules easily dissolve in the spray mixture and hardly any dust is visible.
- Granular bags are easy to handle, transport and use less storage space than liquids.
- Due to its high load of glyphosate active, more hectares can be sprayed with fewer containers than the equivalent liquid formulations.



ALWAYS READ THE LABEL



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HERBICIDE



USE RATE*

In pre-plant uses:

- Refer to label for specific recommendations per weed and growth stage
- Difficult to control species requiring followup spray (variable control) -
1.5 kg/ha GLYGRAN 710 SG

(NB Consult label for each weed's exact recommendations)



REGISTRATION DETAILS*

GLYGRAN 710 SG

Active ingredient: glyphosate (glycine) 710 g ae/kg
& glyphosate ammonium salt 780 g/kg
(Reg. No. L8449 Act 36 of 1947)
(caution)

VELOCITY-DRYMAX

Active ingredient: Ammonium sulphate
1000 g/kg
(Reg. No. L9454 Act 36 of 1947)
(caution)

Registration holder:

Villa Crop Protection (Pty) Ltd.
Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630.
Tel. (011) 396-2233

SLASH 710 SG

Active ingredient: Glyphosate (glycine) 710 ae/kg +
(glyphosate ammonium salt) 780 g/kg
(Reg. No. L8450 Act 36 of 1947)
(caution)

Registration holder:

Universal Crop Protection (Pty) Ltd.
Reg. No. 1983/008184/07
PO Box 801, Kempton Park, 1620.
Tel. (011) 396-2233



PACKAGING
10 kg

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SLASH 710 SG/GLYGRAN 710 SG

Active ingredient: glyphosate (glycine) 710 g ae/kg & glyphosate ammonium salt 780 g/kg
(Reg. No. L8449 L8450 (SLASH 710 SG), (GLYGRAN 710 SG),
Act 36 of 1947)

A water soluble granule, non-selective, systemic post-emergence herbicide with slight or no soil activity, for the control of perennial and annual weeds in canola.

Do's and don'ts

- Always use clean water, free of mud or organic material.
- For optimum results, always apply product on actively growing, stress free weeds.
- Avoid applications during high temperatures and when humidity is low.
- Do not spray weeds covered with dust.
- Apply the product at a minimum volume rate of 125 liters spray mixture per hectare.
- The addition of ammonium sulphate (VELOCITY DRY-MAX) to spray mixture is recommended for effective weed control.
- For optimum and consistent results, it's recommended to add a non-ionic surfactant at 0.5% solution to the spray volume.

- Always fill the tank half full with water before adding any chemicals to the spray mixture and keep on agitating mixture while adding products.
- Slowly add granules to the spray mix to allow product to dissolve properly.



HERBICIDE



USE RATE*

In pre-plant uses:

- Refer to label for specific recommendations per weed and growth stage
- Difficult to control species requiring followup spray (variable control) -
1.5 kg/ha GLYGRAN 710 SG

(NB Consult label for each weed's exact recommendations)



REGISTRATION DETAILS*

GLYGRAN 710 SG

Active ingredient: glyphosate (glycine) 710 g ae/kg & glyphosate ammonium salt 780 g/kg
(Reg. No. L8449 Act 36 of 1947)
(caution)

VELOCITY-DRYMAX

Active ingredient: Ammonium sulphate
1000 g/kg
(Reg. No. L9454 Act 36 of 1947)
(caution)

Registration holder:

Villa Crop Protection (Pty) Ltd.
Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630.
Tel. (011) 396-2233

SLASH 710 SG

Active ingredient: Glyphosate (glycine) 710 ae/kg +
(glyphosate ammonium salt) 780 g/kg
(Reg. No. L8450 Act 36 of 1947)
(caution)

Registration holder:

Universal Crop Protection (Pty) Ltd.
Reg. No. 1983/008184/07
PO Box 801, Kempton Park, 1620.
Tel. (011) 396-2233



PACKAGING

10 kg

ALWAYS READ THE LABEL



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**WINFIELD®
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SUCCESSION 225 EC

Active ingredient: Clethodim (cyclohexanedione) 150 g/ℓ and haloxyfop-R-methyl ester 75 g/ℓ
(Reg. No. L10414, Act 36 of 1947)

A selective systemic herbicide for post-emergence control of grass weeds in canola.



Features

- SUCCESSION 225 EC is a group code A herbicide.
- Applications in sandy soils (< 10 % clay) may still result in slight phytotoxicity where these crops are planted as follow-up crops.
- Apply only during moist conditions when the weeds are growing actively.
- Rain or irrigation within one hour after a SUCCESSION 225 EC application may require a follow-up application.
- SUCCESSION 225 EC is compatible with and must always be used in combination with the adjuvants LINK and VELOCITY® DRYMAX.

Do's and don'ts

- Apply once the Canola has reached at least the 2 to 3 leaf stage, but not later than the 8-leaf growth stage (prior to the beginning of stem elongation).
- DO NOT apply if any flower buds are visible.
- Always add Link plus VELOCITY® DRYMAX to SUCCESSION 225 EC spray mixtures.
- Apply in at least 150 to 300 litres water per hectare, to ensure complete and even spray coverage over the entire leaf area of the target plant, especially where the crop canopy is dense.

ALWAYS READ THE LABEL

HERBICIDE



USE RATE†
- 0.8 ℓ/ha PLUS 0.1 % LINK + 1.0 %
VELOCITY® DRYMAX



REGISTRATION DETAILS†
SUCCESSION 225 EC
Active ingredient: Clethodim
(cyclohexanedione) 150 g/ℓ,
haloxyfop-R-methyl ester 75g/ℓ.
Reg. No. L10414, Act 36 of 1947
(harmful)

Registration holder:
Universal Crop Protection (Pty) Ltd.
Reg. No. 1983/008184/07
PO Box 801, Kempton Park, 1620.
Tel. (011) 396-2233

VELOCITY-DRYMAX
Active ingredient: Ammonium sulphate
1000 g/kg
Reg. No. L9454, Act 36 of 1947
(caution)

Registration holder:
Villa Crop Protection (Pty) Ltd.
Co. Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630.
Tel. (011) 396-2233



PACKAGING
5 ℓ

TRIFLURALIN 480 EC

Active ingredient: Trifluralin (dinitroaniline) 480 g/ℓ
(Reg. No. L4555, Act 36 of 1947)

A selective emulsifiable concentrate herbicide for pre-plant soil incorporation for the control of annual grasses, including herbicide resistant ryegrass (*Lolium spp*) and certain broad leaf weeds in canola.



Features

- TRIFLURALIN 480 EC is an HRAC group code K1 herbicide.
- TRIFLURALIN 480 EC controls grasses in cereals when applied pre-emergence.
- The mechanism of action is the inhibition of cell mitosis on germinating grasses.
- TRIFLURALIN 480 EC is one of the most important and effective pre-plant herbicides, worldwide in cereal production.
- Control of ryegrass (*Lolium spp.*), including ALS & ACCase resistant.

Do's and don'ts

- Incorporate into soil within 10 minutes.
- Do not use in fields where seed was sown.
- Use only in fields planted using a suitable planter, "Ausseeder (Ausplow)", "Voorplanter" or a similar planter".
- Do not use on stony soils or fields with a slope.
- Avoid spraying TRIFLURALIN 480 EC if heavy rains are forecast.
- Always adhere to the waiting period for follow up crops.
- For better grass control, follow up with alternative herbicides as a post emergence application.



HERBICIDE



USE RATE[†]
- 1.5 ℓ/ha



REGISTRATION DETAILS[†]
TRIFLURALIN 480 EC
Active ingredient: trifluralin
(dinitroaniline) 480 g/ℓ
Reg. No. L4555, Act 36 of 1947
(caution)

Registration holder:
Universal Crop Protection (Pty) Ltd.
Reg. No. 1983/008184/07
PO Box 801, Kempton Park, 1620.
Tel. (011) 396-2233



PACKAGING
20 ℓ

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Trade Name	Active Ingredient	Target Species
	picoxystrobin + prothioconazole	Blackleg en sclerotinia
	prothioconazole	Blackleg en sclerotinia

↑ Click on product links above to get to more information on this product.

FACULTY TOP 250 SC

Active ingredient: Picoxystrobin (strobilurin) 150 g/ℓ & Prothioconazole (triazole) 100 g/ℓ
(Reg. No. L10213, Act 36 of 1947)

A suspension concentrate, systemic action fungicide for the preventative control of Blackleg (*Leptosphaeria maculans*) and Sclerotinia stem rot (*Sclerotinia sclerotiorum*) in Canola.



Features

- FACULTY TOP 250 SC is a FRAC group code 11 and group 3 fungicide.
- FACULTY TOP 250 SC is a unique formulation of two active ingredients, picoxystrobin (strobilurin) and prothioconazole (triazole).
- Picoxystrobin is the superior strobilurin fungicide in terms of broad-spectrum disease control with unique redistribution properties, vapor activity towards the leaf base as well as acropetal to the leaf tips.
- Prothioconazole is a new generation Ergosterol Biosynthesis Inhibitor with outstanding translaminar action and excellent residual activity.
- Ideal mix for anti-resistance management.

Do's and don'ts

Blackleg :

- Apply the first application not later than the 4 to 6 leaf stage (BBCH 14 – 16).
- Apply a second application at green bud stage (BBCH 51).
- The first product application must be applied STRICTLY PREVENTATIVELY before any symptoms are noticed.
- Do not apply more than two (2) applications of FACULTY TOP 250 SC per season.

sclerotinia :

- Apply one preventive application at 20 % to 30 % flowering (BBCH 62 to 63) of the crop.
- Do not apply more than two (2) applications of FACULTY TOP 250 SC per season.



FUNGICIDE



USE RATE*

Blackleg & sclerotinia:

- Apply 700ml / ha + 0.05% DIRECT (ground application) or 0.1% DIRECT (aerial application).



REGISTRATION DETAILS*

FACULTY TOP 250 SC
Active ingredient: Picoxystrobin (strobilurin) 150 g/ℓ & Prothioconazole (triazole) 100 g/ℓ
Reg. No. L10213, Act 36 of 1947
(caution)

DIRECT

Active ingredient: Polyether-polymethylsiloxane-copolymer 300 g/ℓ and vegetable oil 650 g/ℓ
Reg. No. L8680, Act 36 of 1947
(caution)

Registration holder:

Villa Crop Protection (Pty) Ltd.
Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630.
Tel. (011) 396-2233



PACKAGING
5 ℓ

ALWAYS READ THE LABEL



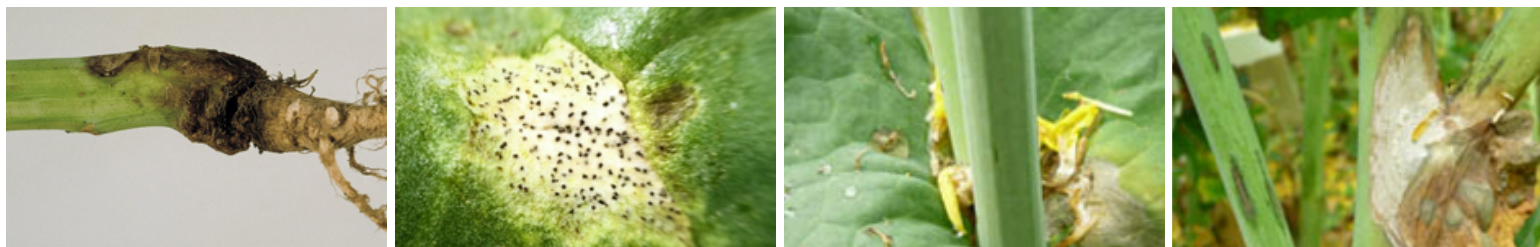
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WINFIELD®
UNITED

SANTANA 480 SC

Active ingredient: Prothioconazole (triazole) 480 g/ℓ
(Reg. No. L10049, Act 36 of 1947)

A suspension concentrate, systemic action fungicide for the preventative control of blackleg and sclerotinia stem rot on canola.



Features

- SANTANA 480 SC is a FRAC group code 3 fungicide.
- Prothioconazole is a new generation ergosterol biosynthesis inhibitor.
- Leads to structural and functional changes in the cell membrane, preventing production of new fungal cells.
- Rapid absorption with a long-lasting action.
- Provides a high level of protective, curative and eradicated disease control.
- Low application rate thus less product needed.

Do's and don'ts

- Apply the first application not later than the 4 to 6 leaf stage (BBCH 14 to 16) and a second application at green bud stage (BBCH 51) for black leg.
- Apply preventive application at 20 % to 30 % flowering (BBCH 62 to 63) for sclerotinia stem rot.
- The first product application must be applied STRICTLY PREVENTATIVELY before any symptoms are noticed.

FUNGICIDE



USE RATE[†]

Ground Application

- 200 ml /ha SANTANA 480 SC +
- 50 ml /100 ℓ water DIRECT;
- Apply in 100-300 ℓ water per hectare

Aerial Application

- 200 ml/ha SANTANA 480 SC +
- 100 ml/100 ℓ water DIRECT;
- Apply in 30-40 ℓ water per hectare



REGISTRATION DETAILS[†]

SANTANA 480 SC
Active ingredient: prothioconazole
(triazole) 480 g/ℓ
Reg. No. L10049, Act 36 of 1947
(harmful)

DIRECT

Active ingredient: Polyether-
polymethylsiloxane-copolymer 300 g/ℓ
and vegetable oil 650 g/ℓ
Reg. No. L8680, Act 36 of 1947
(caution)

Registration holder:
Villa Crop Protection (Pty) Ltd.
Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630.
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Trade name	Active Ingredient	Uses
	polyether-polymethylsiloxane-copolymer	Charge is a non-ionic surfactant with exceptional spreading properties for use with post-emergence crop protection products, especially insecticides.
	ammonium sulphate and non-ionic surfactant	For use with water-sensitive herbicides like glyphosate and products that require the use of a surfactant and/or ammonium sulphate.
	organic acid and alkali	Buffering agent for correction of pH.
	polyether-polymethylsiloxane-copolymer, vegetable oils	A non-ionic adjuvant with spreading and penetrating properties for use with post-emergence agrochemical applications.
	vegetable oils, polyoxy ethylene fatty acid esters	Deposition-agent adjuvant that improves spray deposition and canopy penetration while reducing spray drift and evaporation of spray droplets.
	ammonium sulphate	Use with glyphosate to complex antagonistic ions in spray water.
	isotridecanol	A surfactant that increases the wetting and spreading properties of spray solutions and enhances the activity of various pesticides.

↑ [Click on product links above to get to more information on this product.](#)

CHARGE

Active ingredient: Polyether-polymethylsiloxane-copolymer 1000 g/ℓ
(Reg. No. L5390, Act 36 of 1947)

Charge is a non-ionic surfactant with exceptional spreading properties for use with post-emergence crop protection products, especially insecticides.

Features

- Excellent spreading on waxy and hairy leaf surfaces.
- Enables spray droplets to access difficult-to-reach places.
- Thorough coverage.

Do's and don'ts

- Use only if the insecticide label specifically recommends a super-spreader or organo-silicone surfactant.
- Use the higher rate when coverage is more difficult to achieve, ie. more mature plants.

ADJUVANT



USE RATE†

- 100 – 250 mL/ha or 0.025 – 0.1%
- For use with certain insecticides (eg. ADDITION 150 SC).



REGISTRATION DETAILS†

CHARGE
Active ingredient: polyether-polymethylsiloxane-copolymer 1000 g/ℓ
Reg. No. L9100, Act 36 of 1947
(caution)

ADDITION 150 SC
Active ingredient: indoxacarb (oxadiazine) 150g/l
Reg. No. L9146, Act 36 of 1947
(harmful)

Registration holder:
Villa Crop Protection (Pty) Ltd.
Co. Reg. No. 1992/002474/07
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CLASS ACT NG

Active ingredient: Ammonium sulphate 480 g/ℓ + non-ionic surfactant
(Reg No. L10477, Act 36 of 1947)

CLASS ACT NG is an adjuvant that contains ammonium sulphate, a non-ionic surfactant and has humectant properties for use with water-sensitive herbicides like glyphosate and products that require the use of a surfactant and/or ammonium sulphate.



Figure 1: Faster & more effective glyphosate control

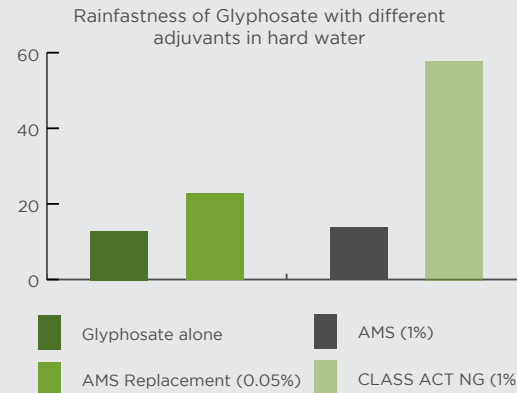


Figure 2: Rainfastness of glyphosate

Features

- Contains the patented CornSorb Technology.
- Highly extended droplet drying time.
- Moist droplet deposit increases absorption speed and amount.
- Contains a full rate of surfactant for droplet spreading and increased absorption.
- Faster control.
- More effective control on hardy weeds.
- Contains ammonium sulphate to negate salt antagonism.
- Registered with leading brand name glyphosate products.

Do's and don'ts

- Use with glyphosate and other salt-sensitive herbicides.
- Do not use as a standard practice with all herbicides.
- Add to the spray tank before the herbicide.

ALWAYS READ THE LABEL

ADJUVANT



USE RATE†

- 1 – 2 % (1 – 2 ℓ /100 ℓ spray solution).
- For use with glyphosate pre-plant burndown and other herbicides that recommend the use of ammonium sulphate adjuvants.
- Use the higher rate in cases where additional coverage is required e.g. resilient weeds or weeds with hairy or waxy surfaces.
- Use the higher rate when spray water contains high levels of calcium, magnesium, sodium and potassium, therefore hard or brackish water.



REGISTRATION DETAILS†

CLASS ACT NG
Active ingredient: Ammonium sulphate 480g/ℓ
Reg. No. L10477, Act 36 of 1947
(caution)

Registration holder:
Winfield Solutions Registration Holdings (Pty) Ltd
Co. Reg. No. 2015/312008/07
PO Box 10413, Aston Manor, 1630
Tel. (011) 396-2233



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10 ℓ



COMMODOBUFF

Active ingredient: Organic acid and alkali 660 g/ℓ
(Reg. No. L5390, Act 36 of 1947)

A buffering agent for the correction of the water pH in alkaline spray mixtures.

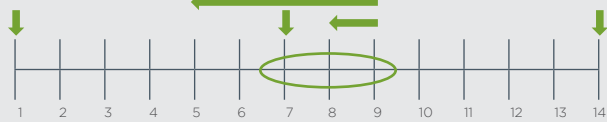


Figure 1: pH-Scale

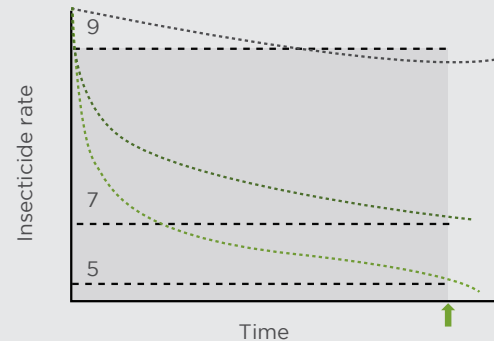


Figure 2: Alkaline hydrolysis

Features

- Used mainly to decrease alkaline hydrolysis (degradation of insecticides in high pH water).
- True buffer that reduces and stabilizes the spray solution pH to between 4 and 6 (typically pH 4.5 – 5.5), where most insecticides are most stable.
- Will not decrease the pH to extremely low levels, especially when using water with a low buffering capacity.

Do's and don'ts

- Add to the spray tank before the alkaline hydrolysis-sensitive insecticide.
- Do not use as a standard practice, but only when labels specifically recommend acidification.

ADJUVANT



USE RATE†

- 0.05 – 0.1 % (50 – 100 ml/100 ℓ spray solution).
- Use the higher rate in water with a high alkalinity (buffering capacity)



REGISTRATION DETAILS†

COMMODOBUFF
Active ingredient: Organic acid and alkali 660g/ℓ
Reg. No. L5390, Act 36 of 1947
(caution)

Registration holder:
Villa Crop Protection (Pty) Ltd.
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DIRECT

Active ingredient: Polyether-polymethylsiloxane-copolymer
300 g/ℓ and vegetable oil 650 g/ℓ
(Reg No. L8680, Act 36 of 1947)

Direct is a non-ionic adjuvant with spreading and penetrating properties for use with post-emergence crop protection product applications.

Features

- Excellent spreading.
- Assists with the absorption process.

Do's and don'ts

- Use only if crop protection label specifically recommends an adjuvant.
- Add to the spray tank after the crop protection products.
- Registered with clethodim.

ADJUVANT



USE RATE[†]
- 0.05 - 0.1 % (50 - 100 ml/100 ℓ
spray solution).



REGISTRATION DETAILS[†]
DIRECT
Active ingredient: Polyether-
polymethylsiloxane-copolymer 300 g/ℓ
and vegetable oil 650 g/ℓ
Reg. No. L8680, Act 36 of 1947
(caution)

Registration holder:
Villa Crop Protection (Pty) Ltd.
Co. Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630.
Tel. (011) 396-2233



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1 ℓ, 5 ℓ



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INTERLOCK

Active ingredient: Vegetable oils, polyoxy ethylene fatty acid esters 880 g/ℓ
(Reg No. L10254 Act 36 of 1947)

INTERLOCK is a deposition-agent adjuvant that improves spray deposition and canopy penetration while reducing spray drift and evaporation of spray droplets.

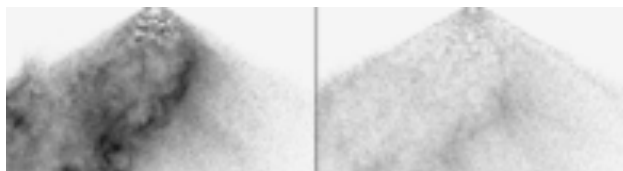


Figure 1: XR nozzle without and with Interlock

Features

- Drastically reduces the ultra and very fine spray droplets.
- Increases mean droplet velocity at canopy height.
- Increases canopy penetration.
- Increases retention and coverage.
- Decreases drift and evaporation.
- Can be used with herbicides, fungicides and insecticides.
- Does not increase the spray solution viscosity.
- Suitable for both ground and aerial application.

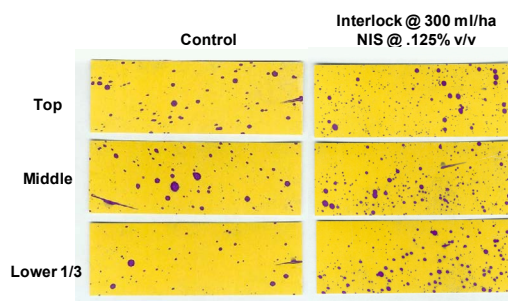


Figure 2: Depth of canopy penetration with Interlock applied to a canopied crop

Do's and don'ts

- Do not use with crop protection products that restrict the use of an adjuvant.
- Does not replace other adjuvants because it should be used in conjunction with the recommended adjuvant.
- Do not mix in an induction system or container when the products are undiluted.
- Registered with Clethodim.

ADJUVANT



USE RATE[†]

- 0.2 – 0.3 ℓ/ha Ground and > 0.5 % Aerial rates.
- Compatible with most commonly used crop protection products. However, a jar test is recommended prior to large scale mixing.
- Add after crop protection products or other adjuvants but prior to complete filling of the spray tank.
- Can be used with most Villa crop protection products.



REGISTRATION DETAILS[†]

INTERLOCK
Active ingredient: Vegetable oils, polyoxy ethylene fatty acid ester 880 g/ℓ
Reg. No. L10254, Act 36 of 1947
(caution)

Registration holder:
Winfield Solutions Registration Holdings (Pty) Ltd.
Co. Reg. No. 2015/312008/07
PO Box 10413, Aston Manor, 1630
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VELOCITY-DRYMAX

Active ingredient: Ammonium sulphate 1000 g/kg
(Reg No. L9454, Act 36 of 1947)

A granular formulation that will slightly reduce alkaline water pH, complex certain antagonistic ions in carrier water and enhance the activity and compatibility of foliar applied herbicides such as glyphosate.



Figure 1: Glyphosate alone and with VELOCITY-DRYMAX

Features

- Overcomes salt antagonism of glyphosate and other salt-sensitive herbicides.
- 100 % concentration dry formulation – less transport cost, less storage space.
- Rate calculation according to water analysis or EC.
- Registered with leading glyphosate brand names.

Do's and don'ts

- Add to the spray tank first, before glyphosate or any other sensitive herbicide.
- Pre-solubilize in a small amount of water before adding to the spray tank.
- It is not necessary to also add buffers to glyphosate spray solutions.
- There is no need to let the tank mixture stand for any period of time in order for the VELOCITY-DRYMAX to bind the antagonistic salts. The reaction occurs during droplet drying.
- Registered with Clethodim.



ADJUVANT



USE RATE[†]

- 0.25 - 1 % (0.25 - 1 kg/100 l spray solution).
- If an EC measurement or water analysis is available, a calculated rate can be recommended.
- For use with glyphosate pre-plant burndown or any other herbicide that is antagonized by salts in carrier water.



REGISTRATION DETAILS[†]

VELOCITY-DRYMAX
Active ingredient: Ammonium sulphate
1000 g/kg
Reg. No. L9454, Act 36 of 1947
(caution)

Registration holder:

Villa Crop Protection (Pty) Ltd.
Co. Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630.
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PACKAGING
10 kg

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VILLA 51

Active ingredient: Isotridecanol (alkylpolyethylene glycol ether) 918 g/ℓ
(Reg. No. L8050, Act 36 of 1947)

Villa 51 is a surfactant that increases the wetting and spreading properties of spray droplets and enhances the activity of various crop protection products.



Figure 1: Droplet spreading with Villa 51 on the right

Features

- Standard surfactant in the industry.
- Excellent spreading.
- Helps with the absorption process.
- Wide rate range.
- Used with certain post-emerge herbicide applications.
- Registered with leading brand name crop protection products.

Do's and don'ts

- Use with post-emerge herbicide applications.
- Use when a surfactant is recommended.
- Add to the spray tank after the crop protection products.

ADJUVANT



USE RATE[†]

- Normally 0.1 % (100 ml/100 ℓ spray solution). Up to 0.25% with certain herbicides.



REGISTRATION DETAILS[†]

VILLA 51

Active ingredient: Isotridecanol
(alkylpolyethylene glycol ether) 918 g/ℓ
Reg. No. L8050, Act 36 of 1947
(harmful)

Registration holder:

Villa Crop Protection (Pty) Ltd.
Co. Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630.
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5 ℓ, 20 ℓ



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PLANT GROWTH REGULATOR



Trade name	Active Ingredient	Uses
	Natural free indole acetic acids	Plant growth promoter

↑ Click on product links above to get to more information on this product.

KELPX-5

Active ingredient: Natural Free IAA
(IAA is the dominant natural free Auxin) 357 µg/kg
(Reg. No. M 24, Act 36 of 1947)

A natural plant growth promoter which improves root growth, crop growth and yields.



Features

- KELPX-5 is a concentrated kelp extract manufactured from *Ecklonia Maxima* kelp - known for its high auxin content, specifically Free IAA (Indole 3 Acetic Acid).
- Auxins improve cell wall elasticity and subsequent cell expansion, with Free IAA being a thousand times more effective than conjugated and bounded auxins.
- KELPX-5 is a super concentrate that can be used at a 5 times dilution or 1/5 dosage when compared to standard kelp extract dosages to obtain comparable results in general - making it very cost effective.
- Preserved without biocides. Once KELPX-5 is diluted in the spray medium, the bacteriostatic effect disappears, rendering beneficial microorganisms unharmed.
- KELPX-5 is compliant with almost all application methods: foliar spray, drip irrigation, in-furrow, through fertigation systems, soil drench, plant dip and seed treatment.

Do's and don'ts

- Allow at least 14 days between applications.
- Ensure final mixture in tank is below pH 7.
- Reduce dosage by 50% on low fertility and unbuffered soil.

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PLANT GROWTH REGULATOR



USE RATE[†]

- 4 ml / 10 l water or
40 ml / 100 l water.
- Standard industry application rate is
400 ml/ha.



REGISTRATION DETAILS[†]

KELPX-5
Active ingredient: Natural Free IAA
(IAA is the dominant natural free Auxin)
357 µg/kg
Reg. No. M 24, Act 36 of 1947.

Registration holder:
KelpX (Pty) Ltd
Reg. No. 2017/531270/07
PO Box 11355, Tiegerpoort, 0056
Tel: 060 913 9902



PACKAGING
20 l



TANK CLEANER



Trade name	Active ingredient	Uses
	Proprietary blend of phosphate and carbonate salts, sequestering agents, surfactants and solvents.	Spray tank cleaner for commercial use on farm only

↑ [Click on product links above to get to more information on this product.](#)

PROTANK LIQUID CLEANER

Active ingredient: Proprietary blend of phosphate and carbonate salts, sequestering agents, surfactants and solvents 100%

Spray tank cleaner for commercial or farm use only.



Features

- PROTANK LIQUID CLEANER decreases contamination when changing from one chemical to another.
- Assures accurate dosage by removing chemicals from the previous batch.
- Removes scale, dirt, etc.
- Protects pump and valves.
- Reduces strainer clogging.
- Minimizes nozzle wear.

Do's and don'ts

- Use a hand boom to wash down the tank interior and cover.
- Once the pump and interior has been cleaned, open boom valve and empty tank by spraying out through boom and nozzles.
- Take care to observe proper disposal of spray solution.
- Rinse tank by following the same procedure using water only.
- A three-minute rinse using cold water is necessary, however if you are changing over to a different chemical, a second rinse will lessen the chance of contamination.
- Use as directed but in addition allow the rinse solution to remain in the sprayer and its parts overnight.

TANK CLEANER



USE RATE*

Large Tanks (380- 1100 ℓ)

- Close boom valve and add 190 ℓ water to tank, then turn on agitation and add 470ml of PROTANK LIQUID CLEANER.

Smaller tanks

- Fill tank half full of water and use 25mℓ or more for every 10 ℓ of tank volume.



REGISTRATION DETAILS*

PROTANK LIQUID CLEANER

Active ingredient: Proprietary blend of phosphate and carbonate salts, sequestering agents, surfactants and solvents.

Registration holder:

Villa Crop Protection (Pty) Ltd.
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