

WINFIELD® UNITED

Grape Crop Manual





Wine Grape Growth Stage Spray Programme

BBCH Growth stages		J.								
Description of stage	Dormancy		10 cm	20-25 cm	Pre-flowering/ early flowering	Match head berry size	Pea-berry size	Veraison	10 Days prior to harvest	Post Harvest (pre-leaf drop)
DOWNY MILDEW	Low Risk	VILLA UNIZEB 800 WP OR DETECT 400 SC	VILLA UNIZEB 800 WP OR DETECT 400 SC	CYMOXAZEB WP + PHOSPHITE 400 SL	CYMOXAZEB WP + PHOSPHITE 400 SL	PHOSPHITE 400 SL + VILLA UNIZEB 800 WP OR DETECT 400 SC	PHOSPHITE 400 SL + VILLA UNIZEB 800 WP OR DETECT 400 SC			VILLA UNIZEB 800 WP OR DETECT 400 SC
(Plasmopara viticola)	High Risk	VILLA UNIZEB 800 WP OR DETECT 400 SC	CYMOXAZEB WP + PHOSPHITE 400 SL	CYMOXAZEB WP + PHOSPHITE 400 SL	DIMETHOZEB 690 WP + PHOSPHITE 400 SL	DIMETHOZEB 690 WP + PHOSPHITE 400 SL	PHOSPHITE 400 SL + VILLA UNIZEB 800 WP OR DETECT 400 SC	PHOSPHITE 400 SL + VILLA UNIZEB 800 WP OR DETECT 400 SC		PHOSPHITE 400 SL + VILLA UNIZEB 800 WP OR DETECT 400 SC
POWDERY MILDEW Oidium tuckeri		SULGRAIN 800 WDG	SULGRAIN 800 WDG	POTENTIAL 500 EC	POTENTIAL 500 EC + SULGRAIN 800 WDG	EXCALIBUR 200 EW OR DOMARK 100 EC	SULGRAIN 800 WDG+ EXCALIBUR 200 EW OR DOMARK 100 EC	EXCALIBUR 200 EW OR DOMARK 100 EC		SULGRAIN 800 WDG
DEAD ARM (Phomopsis viticola)		VILLA UNIZEB 800 WP	VILLA UNIZEB 800 WP	VILLA UNIZEB 800 WP						
BOTRYTIS/ GREY MOULD (Botrytis cinerea)					ELITE 625 WDG OR SUPPORT 400 SC	SUPPOR	T 400 SC	ELECTRON 500 SC		
MEALYBUG (Planococcus ficus)	CHLORPYRIFOS 400 EC + CHLORPYRIFOS 400 EC (two weeks later)	IMIDOR 350 SC		TIVOLI	240 SC	TIVOLI	240 SC	DICHLORV	'OS 1000 EC	
ARGENTINE ANTS (Linepithema humile)						ANTSET 200 SC				
BLACK PUGNACIOUS ANTS (Anoplolepis spp.)	•					ANTSET 200 SC				
BUDMITE & OTHER MITES (Colomerus vitis)			LESSON 50 EC OR VANITY 200 SC	LESSON 50 EC OR VANITY 200 SC						
BANDED FRUIT WEEVIL / SNOUT BEETLE (Phlyctinus callosus)				MARGIN 300 WDG	Optional: MARGIN 300 WDG					
LEAFHOPPERS (Acia & Mgenia spp.)							MARGIN	300 WDG		Optional: MARGIN 300 WDG
NEMATODES Apply either Option 1 (spring or Option 2 (autumn).	Option 1: NEMACUR 400 EC									Option 2: NEMACUR 400 EC
PLANT GROWTH REGULATORS	ALERT 520 SL									

^{*} 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.

^{*} Spray guideline is based on phenological stages. Consult industry MRL list with regard to limitations for export destinations.

Table Grape Growth Stage Spray Programme

BBCH Growth stages												
Description of stage	Dormancy		10 cm	20-25 cm	Pre-flowering/ early flowering	Full bloom	Match head berry size	Pea-berry size	10 Days later	Veraison	10 Days prior to harvest	Post Harvest (pre-leaf drop)
DOWNY MILDEW		VILLA UNIZEB 800 WP OR DETECT 400 SC	VILLA UNIZEB 800 WP OR DETECT 400 SC	CYMOXAZEB WP + PHOSPHITE 400 SL	CYMOXAZEB WP + PHOSPHITE 400 SL	DIMETHOZEB 690 WP + PHOSPHITE 400 SL	DIMETHOZEB 690 WP +PHOSPHITE 400 SL	PHOSPHITE 400 SL	PHOSPHITE 400 SL	PHOSPHITE 400 SL		PHOSPHITE 400 SL + VILLA UNIZEB 800 WP OR DETECT 400 SC
(Plasmopara viticola) ・ ジェ ・ と ・ に ・ に ・ に ・ に ・ に ・ に ・ に ・ に		VILLA UNIZEB 800 WP OR DETECT 400 SC	PHOSPHITE 400 SL + VILLA UNIZEB 800 WP OR DETECT 400 SC	CYMOXAZEB WP + PHOSPHITE 400 SL	DIMETHOZEB 690 WP + PHOSPHITE 400 SL	DIMETHOZEB 690 WP + PHOSPHITE 400 SL	DIMETHOZEB 690 WP + PHOSPHITE 400 SL	ESSENCE 500 WDG	ESSENCE 500 WDG	PHOSPHITE 400 SL	PHOSPHITE 400 SL	PHOSPHITE 400 SL + VILLA UNIZEB 800 WP OR DETECT 400 SC
POWDERY MILDEW (Oidium tuckeri)		SULGRAIN 800 WDG	SULGRAIN 800 WDG	POTENTIAL 500 EC	POTENTIAL 500 EC + SULGRAIN 800 WDG	FLUC COPP	PYRAM ASULFA	ESSENCE 500 WDG + SULGRAIN 800 WDG	EXCALIBUR 200 EW OR DOMARK 100 EC	EXCALIBUR 200 EW OR DOMARK 100 EC	EXCALIBUR 200 EW OR DOMARK 100 EC	SULGRAIN 800 WDG
BOTRYTIS/ GREY MOULD (Botrytis cinerea)						ELITE 625 WDG	OR FLUOPYRAM	SUPPORT 400 SC	COPPASULFA	ELECTRON 500 SC	ELECTRON 500 SC	
MEALYBUG (Planococcus ficus)	CHLORPYRIFOS 400 EC + CHLORPYRIFOS 400 EC (two weeks later)	IMIDOR 350 SC OR EMIT 700 WDG		TIVOL	l 240 SC		TIVOLI	240 SC		DICHLOR	/OS 1000 EC	EMIT 700 WDG
ARGENTINE ANTS (Linepithema humile)					ANTSET 200 SC							
BLACK PUGNACIOUS ANTS (Anoplolepis spp.)						ANTSET 200 SC						
BUDMITE & OTHER MITES (Colomerus vitis)		RIPPLE 500 EC	LESSON 50 EC OR VANITY 200 SC	LESSON 50 EC OR VANITY 200 SC								
LEAFHOPPERS (Acia & Mgenia spp.)									MARGIN 300 WDG			Optional: MARGIN 300 WDG
LEAFHOPPERS (Acia & Mgenia spp.)										HARRIE	Fly Bait: R 500 EC + EIN HYDROLYSATE	
LEAFHOPPERS (Acia & Mgenia spp.)	Option 1: NEMACUR 400 EC											Option 2: NEMACUR 400 EC
PLANT GROWTH REGULATORS	ALERT 520 SL					FALGRO 4 SL C	DR FALGRO 20 SP			ETHEPHON 480 SL		

^{*} 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.

^{*} Spray guideline is based on phenological stages. Consult industry MRL list with regard to limitations for export destinations.





Trade Name	Active Ingredient	Target Species	Crop
	fipronil and lambda-cyhalothrin	Argentine ants, black pugnacious ants	Wine and table grapes
	abamectin	Two-spotted spider mite, leaf blister mite, western flower thrip, guava thrip	Wine and table grapes
	chlorpyrifos (organophosphate)	Mealy bug, cocktail ants	Wine and table grapes
	dichlorvos (organophosphate)	Mealy bug	Wine and table grapes
	imidacloprid (chloro-nicotinyl)	Mealy bug	Table Grapes
	mercaptothion (organophosphate)	Fruit flies	Table Grapes
	fenpyroximate	Bud mite, leaf blister mite	Wine and table grapes
	acetamiprid (acetamidine)	Mealy bug	Table Grapes
	indoxacarb (oxadiazine)	Banded fruit weevil (W), false tiger moth (T), leafhoppers	Wine and table grapes
	fenamiphos (organophosphate)	Nematodes	Wine and table grapes
	bromopropylate (benzilic acid ester)	Bud mite	Table Grapes
	spirotetramat (tetramic acid)	Mealy bug	Wine and table grapes
	fenazaquin	Bud mite, leaf blister mite	Wine and table grapes

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





ANTSET 200 SC

Active ingredient: Fipronil 182 g/ ℓ + Lambda-cyhalothrin 18 g/ ℓ (Reg. No. L10378 Act 36 of 1947)

A suspension concentrate contact and stomach insecticide for the control of Ants in vines.









Features

- ANTSET 200 SC is a unique double active insecticide with two different modes of action.
- ANTSET 200 SC contains fipronil (phenylpyrazole) and lambda-cyhalothrin (pyrethroid) insecticides, and belongs to IRAC Groups 2B/3.
- Long residual action on grapevine stems.
- Controls both Argentine Ants (*Linepithema humile*) and Black Treat trellis poles and all other structures that Ants may climb Pugnacious Ants (Anoplolepis spp.).
- Can be used in combination with insect stem bands.
- · Non-volatile, odourless chemical.
- Fast application method compared to other alternatives.

Do's and don'ts

- Only treat the bottom 30 cm of the grapevine stems, using a ring-spray attachment fitted to the lance of a knapsack sprayer.
- Apply to the point of run-off as a coarse spray.
- Apply at the beginning of the season (October) as soon as Ants start foraging in the vineyard canopy.
- to reach the vines.
- Apply only one application per growing season.
- Do not add any attractants such as sugar or proteins to ANTSET 200 SC.
- Do not apply if there are flowering plants near the vines which can attract Bee activity.

INSECTICIDE





USE RATE[†] Argentine Ants:

- 250 ml/100l water

Black Pugnacious Ants: - 250-500 ml/100l water



REGISTRATION DETAILS† ANTSET 200 SC Active ingredient: Fipronil 182 g/l + Lambda-cyhalothrin 18 g/l (Reg. No. L10378 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



PACKAGING







BIOMECTIN 18 EC

Active ingredient: Abamectin 18 g/l (Reg. No. L7979 Act 36 of 1947)

An emulsifiable concentrate insecticide with translaminar activity for the control of Two-spotted spider mite (*Tetranychus urticae*), Erinose/Blister mite (*Colomerus vitis*), Western flower thrip (*Frankliniella occidentalis*) and Guava thrip (*Heliothrips sylvanus*).









Features

- IRAC Group 6 insecticide.
- Inhibits functioning of central nervous system.
- BIOMECTIN 18 EC exhibits translaminar movement.
- Relatively non-toxic to beneficial insects.
- Suitable for use in an IPM programme.
- Short withholding period 14 days.

Do's and don'ts

- Commence spraying as soon as all mite stages are present and the mobile stage exceed 10 mites per 10cm² on 30% of the leaves sampled.
- Apply BIOMECTIN 18 EC at first sign of thrips infestation.
- Only use BIOMECTIN 18 EC for the late season control of mites and thrips.
- Do not exceed 2 applications per season.
- Do not apply BIOMECTIN 18 EC during flowering when bees are active.
- Do not apply captan or sulphur sprays within two weeks of BIOMECTIN 18 EC applications to prevent fruit/leaf spotting.









USE RATE[†]
- 350 ml/ha



7 REGISTRATION DETAILS† BIOMECTIN 18 EC Active ingredient: Abamectin 18 g/l (Reg. No. L7979 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, 5 l & 20 l





CHLORPYRIFOS 480 EC

Active ingredient: Chlorpyrifos (organophosphate) 480 g/l (Reg. No. L7183 Act 36 of 1947)

An emulsifiable concentrate contact insecticide for the preventative and corrective control of Mealybug and Cocktail Ants in wine and table grapes.









Features

- CHLORPYRIFOS 480 EC is an organophosphate insecticide, that belongs to IRAC Group 1B.
- CHLORPYRIFOS 480 EC is an Acetylcholinesterase (AChE) inhibitor that impacts an insect's nervous system.
- Chlorpyrifos is one of the most widely used organophosphates, controlling both Mealybug and Ants in vineyards.
- It is a non-systemic insecticide with a contact, stomach and respiratory action.
- The respiratory action allows for better coverage and penetration into areas where the insects are hard to reach, such as under the bark.

Do's and don'ts

- It is a pH sensitive insecticide, therefore apply in combination with a Villa registered pH buffer.
- Always wear correct protective clothing including masks and follow practises that minimize user exposure.
- It is phytotoxic to vine leaves younger than 4 weeks.
- Only apply as a dormant application in table grapes due to export restrictions.

INSECTICIDE





USE RATE[†]

Wine Grape

Mealybug and suppression of Argentine Ants:

- 75 ml/100l water
- Mealybug:
- 100 ml/100l water (low infestation)
- 200 ml/100l water (high infestation)

Wine and Table grapes Cocktail Ants:

- 400 ml/100l water

Table Grapes Mealybug:

- 200 ml/100l water



REGISTRATION DETAILS† CHLORPYRIFOS 480 SC Active ingredient: Chlorpyrifos (organophosphate) 480 g/l (Reg. No. L7183 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







DICHLORVOS 1000 EC

Active ingredient: Dichlorvos (organophosphate) 1 000 g/l (Reg. No. L4640 Act 36 of 1947)

An emulsifiable concentrate insecticide, with short residual action, for the control of Mealybug (Planococcus ficus) on grapes.









Features

- DICHLORVOS 1000 EC is an organophosphate insecticide, that belongs to IRAC Group 1B.
- Used as a late season corrective treatment for Mealybug.
- Respiratory action allows effective penetration in hard to reach areas, such as under the bark.
- Registered on a wide range of crops, e.g. vegetable crops.

Do's and don'ts

- In winter, apply between 250-500 litres spray mixture per hectare.
- Apply as a high-volume application, during spring and summer, with 4,000-6,000 litres spray mixture per hectare.
- Start spraying when pest is noticed, usually at the base of young shoots, during November and December.
- Use only as a supplementary mealybug spray to the standard programme.
- For table grape cultivars with a relatively short harvesting period, apply one spray ±3 weeks after the last application of the standard programme.
- For table grapes with a prolonged harvesting period, apply two sprays, the second 3-4 weeks after the first spray.



INSECTICIDE





- 75 ml/100l water (3.0-4.5 l/ha)



REGISTRATION DETAILS† DICHLORVOS 1000 EC Active ingredient: Dichlorvos (organophosphate) 1000 g/l (Reg. No. L4640 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



PACKAGING

16,56







EMIT 700 WDG

Active ingredient: Imidacloprid (chloro-nicotinyl) 700g/kg (Reg. No. L9183 Act 36 of 1947)

A systemic water dispersible granule insecticide for the control of Mealybug (*Planococcus ficus*) on table grapes.









Features

- EMIT 700 WDG is a neonicotinoid insecticide, that belongs to IRAC Group 4A.
- · Acts on central nervous system of insects.
- Highly systemic, with good root uptake and acropetal distribution within the grapevine.
- Long residual action against Mealybug.
- Applied as a drench around the base of the stem and not as a foliar application.

Do's and don'ts

- Do not apply to grapevines under dryland conditions. Irrigate regularly after application.
- Do not apply EMIT 700 WDG through the irrigation system.
- Apply to moist soil with a surface free of leaves, weeds and other organic material that could restrict leaching of mixture into the soil.
- EMIT 700 WDG applied at budburst must be preceded by a winter treatment with an alternative registered product.
- Post-harvest application must be applied within 30 days after harvest and followed by a winter treatment with an alternative registered product.
- Control Ants, with e.g. ANTSET 200 SC, to enable natural predators and parasites to contribute towards the biological control of Mealybugs.



INSECTICIDE





USE RATE[†]

Soil drench application: 0.75 g per vine

- Apply around the base of the stem within 30 days after harvest (before leaf-drop)
 OR at budburst in 500 ml water per vine.
- Follow-up immediately with another 2.0 ℓ of clean water per vine.
- Create a small basin to contain the mixture and water around the stem.
- Irrigate within 24 hours after application, but do not wash the drench below the root zone.



REGISTRATION DETAILS[†] EMIT 700 WDG

Active ingredient: Imidacloprid (chloronicotinyl) 700 g/kg (Reg. No. L9183 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

ANTSET 200 SC Active ingredient: Fipronil 182 g/l + Lambda-cyhalothrin 18 g/l (Reg. No. L10378 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



PACKAGING 1 kg





Active ingredient: Mercaptothion (organophosphate) 500 g/l (Reg. No. L10373 Act 36 of 1947)

An emulsifiable concentrate stomach and contact insecticide for use as a bait for the control of Fruit Flies on table grapes.







Features

- HARRIER 500 EC is an organophosphate insecticide, that belongs to IRAC Group 1B.
- Insecticide with a short residual action.
- · Both contact and stomach action.
- Registered on a wide range of agricultural crops.
- Attracts Fruit Flies away from the bunches, towards the foliage at the top of the canopy where HARRIER 500 EC was applied.

Do's and don'ts

Fruit fly bait:

- Apply 200-300 \(\ell \) bait mixture per hectare in weekly intervals, directed to the foliage as a coarse droplet spray as soon as fruit becomes susceptible to attack.
- Treat every row or vine on at least one side.
- Do not treat directly onto bunches of table grapes, as the bait could possibly cause unsightly marks on the grapes.





USE RATE[†]

Fruit fly bai

- 175 ml HARRIER 500 EC plus 8 kg sugar or 400-500 ml Protein hydrolysate

Concentrated Fruit fly bait:

- 500 ml HARRIER 500 EC plus 2000 ml Protein hydrolysate



REGISTRATION DETAILS† HARRIER 500 EC Active ingredient: Mercaptothion (organophosphate) 500 g/l (Reg. No. L10373 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, 20 l







LESSON 50 EC

Active ingredient: Fenpyroximate 50 g/l (Reg. No. L9256 Act 36 of 1947)

An emulsifiable concentrate residual contact acaracide/insecticide for the control of Mites on grapes.









Features

- LESSON 50 EC is a Mitochondrial Electron Transport Inhibitor (METI) acaricide and insecticide and belongs to IRAC Group 21.
- Most effective against mobile stages of Mites. Optimum control is obtained when applications coincide with periods of maximum egg hatch.
- Mixable with most fungicides applied at 5-10 cm shoot length.
 Ideal pH range is 5-8.
- New chemistry on mites in vineyards.
- Application done in spring will control the next seasons infestation.
- Effective against all grapevine mites (Colomerus vitis); Grapevine Bud-, Leaf Blister-, Leaf Curl Mite.

Do's and don'ts

- Apply 2 treatments per season, apply the 1st treatment when shoots are 5-10 cm long.
- Follow-up 10-14 days later with a 2nd treatment.
- Apply as high volume, full cover sprays (400-500 \emptyset water/
- · Ensure thorough wetting of new shoots.

INSECTICIDE





Grapevine mites (Colomerus vitis) - 125 ml/100 l water (12.5 ml/10 l water)



REGISTRATION DETAILS† LESSON 50 EC

Active ingredient: Fenpyroximate 50 g/l (Reg. No. L9256 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







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 Mealybug (*Planococcus ficus*) on table grapes.









Features

- MAINTAIN 200 SP is a neonicotinoid insecticide and belongs to IRAC Group 4A.
- · Highly effective against crawler stage of Mealybug.
- Favourable environmental profile with minimal effect on beneficial insects, excellent choice for IPM.
- Contact and stomach action.
- Signs of suppression of other grapevine pests such as Leafhoppers and Leaf miner have been documented.

Do's and don'ts

- Apply a maximum of one application per season.
- Monitor for Mealybug males using pheromone traps.
- Once the Mealybug threshold has been reached, wait for crawler movement and apply treatment on the bases of shoots or leaves.
- If required, follow-up with an alternative registered product, with a different mode of action.
- The use of MAINTAIN 200 SP in summer must be preceded by a winter programme for the control of Mealybug.
- Ideal pH range is 4.2-5.5.
- Do not mix with triazole fungicides, as bee toxicity is dramatically synergized.
- Do not apply to flowering crops if bees are active the area.
- High volume application is recommended.







LISE RATE

- 50 g/100l water MAINTAIN 200 SP plus a registered acidifier/buffer



REGISTRATION DETAILS†
MAINTAIN 200 SP
Active ingredient: Acetamiprid
(acetamidine) 200 g/kg
(Reg. No. L9225 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 500 g





MARGIN 300 WDG

Active ingredient: Indoxacarb (oxadiazine) 300 g/kg (Reg. No. L9009 Act 36 of 1947)

A water dispersible granule insecticide with contact and stomach action for the control of Banded Fruit Weevil (*Phlyctinus callosus*), False Tiger Moth (*Agoma trimenii*) and Leafhoppers (*Acia & Mgenia spp.*) on wine and/or table grapes.









Features

- MARGIN 300 WDG is an oxadiazine insecticide, that belongs to IRAC Group 22.
- The contact action is by means of absorption through the insect's cuticle, whereas stomach action takes place through ingestion of the active ingredient.
- Death of the insect may take a few days to occur, but feeding is inhibited within 2 8 hours after application.
- · Can be used against all larval instar stages.
- MARGIN 300 WDG has no adverse effect on most advantageous predatory insects and/or predatory mite species.
- Most effective under hot climatic conditions.

Do's and don'ts

Banded Fruit Weevil:

- Apply 1st treatment at 25 cm shoot length or as soon as feeding damage is visible on lower shoots.
- Do not apply later than full bloom.
- Do not exceed two MARGIN 300 WDG treatments per season against Banded Fruit Weevil.

False Tiger Moth:

- Apply as a full cover preventative spray when larvae are present (usually in November/December).
- Apply a follow-up treatment 10 days later if required. Leafhoppers:
- Apply as soon as Leafhoppers are present. Apply a follow-up treatment 10-14 days later in the case of reinfestation.
- Do not exceed two MARGIN 300 WDG applications per season on wine and table grapes.



INSECTICIDE





USE RATE

Banded Fruit Weevil (wine grapes only)

- 20 g/100l water

False Tiger Moth (table grapes only)

- 20 g/100l water

Leafhoppers (wine and table grapes)

- 20 g/100l water



REGISTRATION DETAILS†
MARGIN 300 WDG
Active ingredient: Indoxacarb
(oxadiazine) 300 g/kg
(Reg. No. L9009 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 250 g

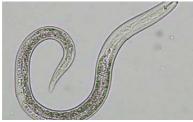






A systemic emulsifiable concentrate nematicide and insecticide for the control of Nematodes in vineyards.







Features

- NEMACUR 400 EC is an organophosphate insecticide and nematicide and belongs to IRAC Group 1B.
- Systemic nematicide absorbed by roots and leaves and translocated within the plant.
- Controls most nematode species present in South African vineyards.
- Low application rate per square meter.
- Easily incorporated by irrigation systems.
- Registered on a wide variety of agricultural crops.

Do's and don'ts

- Must be applied as a 50 cm band on either side of the vine.
- The application should be applied to the surface and therefore it is important to have it free from weeds or cover
- A spring application should be done 14 days before expected bud burst, or an autumn application directly after harvest.
- Must be incorporated in the soil either by sufficient rain or irrigation, in order to wash the product into the soil.
- If at least 20 mm of rain has not fallen within 14 days of application, incorporate by means of irrigation by applying 13 mm followed 10 days later by another 13 mm water.
- Alternate between different nematicide modes of action, to prevent increased microbial degradation.







- 2.5 ml/m² (250 ml/2.5l water per 100 m row as a 1 m band over the row)



REGISTRATION DETAILS† NEMACUR 400 FC Active ingredient: Fenamiphos (organophospate) 400g/l (Reg. No. L0367 Act 36 of 1947)

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PACKAGING

(very toxic)







RIPPLE 500 EC

Active ingredient: Bromopropylate (benzilic acid ester) 500 g/l (Reg. No. L9208 Act 36 of 1947)

An emulsifiable concentrate contact acaricide for the control of Mites in table grapes.









Features

- RIPPLE 500 EC is a benzyl acid ester insecticide and belongs to IRAC Group 8.
- Contact mode of action contributes to a low MRL if applied correctly.
- Safe for applicator, no case of human poisoning has been recorded.
- Effective against all grapevine mites (Colomerus vitis);
 Grapevine Bud-, Leaf Blister- and Leaf Curl Mite.
- Compatible with early season fungicides.

Do's and don'ts

- · Apply the product well before any signs of flowering.
- Only apply as the 1st miticide application, when the longest shoots are 5-10 cm long.
- The active ingredient Bromopropylate is banned in European Union countries. Confirm withholding periods for export crops with the relevant export organization.
- For best results, apply 0,5 ℓ spray mixture per vine for thorough coverage of the leaf canopy.

INSECTICIDE





USE RATE

- 50 ml/100 l water (125-750 ml/ha)



REGISTRATION DETAILS† RIPPLE 500 EC Active ingredient: Bromopropylate (benzilic acid ester) 500 g/l (Reg. No. L9208 Act 36 of 1947) (caution)

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



PACKAGING







TIVOLI 240 SC

Active ingredient: Spirotetramat (tetramic acid) 240 g/\(\ell\) (Reg. No. L9385 Act 36 of 1947)

A suspension concentrate, systemic insecticide for the control of Mealybugs (*Planococcus ficus*) on wine and table grapes.









Features

- TIVOLI 240 SC is a tetronic and tetramic acid derivative insecticide and belongs to IRAC Group23.
- Inhibits acetyl CoA carboxylase and lipid biosynthesis.
- Highly systemic with very strong translaminar effect which allows the active ingredient to reach protected pests.
- Strong acropetal and basipetal movement within the plant (ambimobile translocation), that protects leaves that develop after application.
- Favorable environmental profile with minimal effect on beneficial insects, therefore an excellent choice for IPM.
- Can be applied during flowering stage without affecting pollinators (i.e. bees).
- Very effective at the juvenile or nymph stages of the target insect and causes sterilization of adult females. Adult stages can therefore still be observed for a period after application.

Do's and don'ts

- Do not apply it tank mixtures with fungicides, this may result in sub-optimal control.
- Apply the 1st treatment when the inflorescences are clearly visible until fully developed (25-30 cm shoot length).
- Apply a follow-up treatment approximately 6 weeks later at pea-berry stage.
- Allow a minimum spray-interval of 30 days between the two applications.





USE RATE† - 20 ml/100l water



REGISTRATION DETAILS† TIVOLI 240 SC Active ingredient: Spirotetramat (tetramic acid) 240 g/ ℓ (Reg. No. L9385 Act 36 of 1947) (caution)

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PACKAGING





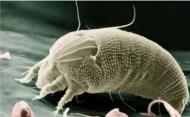


VANITY 200 SC

Active ingredient: Fenazaguin 200 g/l (Reg. No. L9516 Act 36 of 1947)

A residual acaricide suspension concentrate for the control of Grapevine Bud- and Leaf Blister Mite on wine and table grapes.









Features

- VANITY 200 SC is a Mitochondrial Electron Transport Inhibitor (METI) acaricide and insecticide that belongs to IRAC Group 21.
- Disrupts biochemistry of insect's mitochondria, inhibiting mitochondrial electron transport.
- Ingestion and dermal route of exposure.
- VANITY 200 SC is pH sensitive.
- Narrow insect control spectrum, which allows for a targeted application with limited effect on beneficial insects.
- Good MRL breakdown that is beneficial for export grapes.

Do's and don'ts

- Start treatment when shoots are 5-10 cm long.
- Follow-up sprays should be done within 14 days.
- Do not apply after the first indications of flowering.
- Do not apply this product aerially or through any type of irrigation system.
- Do not apply during the heat of the day or if rain is imminent.
- Adjust water volume based on plant size and density (400-500 l/ha).
- Make use of Villa approved adjuvants if water quality is poor.
- Suggested use as a follow-up spray to RIPPLE 500 EC in a Grapevine Bud- and Leaf Blister Mite spray programme.



INSECTICIDE



Grapevine Bud- and Leaf Blister Mite - 50 ml/100l water



REGISTRATION DETAILS† VANITY 200 SC Active ingredient: Fenazaquin 200 g/l (Reg. No. L9516 Act 36 of 1947) (harmful)

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RIPPLE 500 EC Active ingredient: Bromopropylate (benzilic acid ester) 500 g/l (Reg. No. L9208 Act 36 of 1947) (caution)

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PACKAGING









Trade Name	Active Ingredient	Target Species	Crop
	glufosinate-ammonium	Annual & perennial weeds	Wine and table grapes
	glyphosate (glycine)	Annual & perennial weeds	Wine and table grapes
	(4-chloro-2-methylphenoxy) acetic acid	Annual weeds	Wine and table grapes
	oxyfluorfen	Annual broad-leaf & grass weeds	Wine grapes
	clethodim (cyclohexanedione)	Grass weeds	Wine and table grapes
	paraquat ion (bypiridyl)	Annual grasses & broad-leaved weeds	Wine and table grapes
	glyphosate	Annual & perennial weeds	Wine and table grapes
	glyphosate (glycine)	Annual & perennial weeds	Wine and table grapes
	terbuthylazine (triazine)	Annual weeds	Wine and table grapes

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





BOUND 200 SL

Active ingredient: Glufosinate-ammonium 200 g/Ł (Reg. No. L9280 Act 36 of 1947)

A non-selective soluble concentrate herbicide with contact action, for the post-emergence control of annual weeds.









Features

- BOUND 200 SL is a Phosphinic acid group herbicide and belongs to HRAC Group H.
- Kills the weed by inhibiting an enzyme central to the plant's metabolism.
- · Contact herbicide with limited translocation in the plant.
- BOUND 200 SL is active on all the green parts of the treated weeds.
- Chlorosis and wilting occur within 3-5 days after application followed by death 1-2 weeks later.
- BOUND 200 SL is useful for controlling glyphosate resistant weeds such as *Lolium spp.* and *Conyza spp.*
- Control of hard to kill weeds such as:
 - Malva parviflora: small mallow/kiesieblaar.
 - Conyza bonariensis: flax-leaf fleabane/vaalskraalhans.
 - Lolium spp.: rye grass /raaigras.
 - Cynodon dactylon: common couch grass /kweekgras.

Do's and don'ts

- Do not spray vines younger than two years unless stems are shielded.
- Start with application in late winter or early spring.
- Commence spraying before bud burst in bush and low trellised vines.
- Ensure that direct spray or drift does not come into contact with green leaves, active buds and fruit.
- Ensure thorough coverage of the weed foliage.









USE RATE† - 5 - 7.5 l/ha



REGISTRATION DETAILS†
BOUND 200 SL
Active ingredient: glufosinate-ammonium 200 g/ℓ
(Reg. No. L9280 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





GLYGRAN 710 SG

Active ingredient: Glyphosate (glycine) 710 g ae/kg (glyphosate ammonium salt) 780 g/kg (Reg. No. L8449 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 grapevines.









Features

- GLYGRAN 710 SG is a Glycine group herbicide and belongs to HRAC Group G9.
- Systemic herbicide for post emergence weed control.
- Fast dissolving SG formulation.
- Minimum impact on the environment.
- Ideal mixing partner for pre-emergence herbicides.
- Extremely cost-effective active ingredient.
- Reduced competition with weeds for the availability of water, light and nutrients.

Do's and don'ts

- Do not spray while weeds are wet, dormant, covered with dust or under any sort of stress (drought, cold, heat, etc.).
- Rain or irrigation within 1 hour after application can have an adverse effect on efficacy.
- Apply before bud break in vines older than 2 years.
- Do not apply when vines have started to translocate reserves from leaves to roots.
- Younger vines with a green bark should be shielded.
- · Direct spray onto weeds.
- Do not spray onto pruned vines until wounds have sealed properly.
- Always use GLYGRAN 710 SG in combination with an ammonium sulphate product.









USE RATE[†]

Early winter: (Weeds under 15 cm height) - 0.8 kg/ha plus 3.0 l/ha MCPA 400 SL

Late winter: (Weeds under 30 cm height)
- 1.0 kg/ha plus 4.0 l/ha MCPA 400 SL



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)
- MCPA 400 SL Active ingredient: (4-chloro-2-methylphenoxy) acetic acid 400 g/l (as the phenoxy acetic salt) (potassium salt) 470 g/l (Reg. No. L5793 Act 36 of 1947) (harmful)

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PACKAGING 10kg





MCPA 400 SL

Active ingredient: (4-chloro-2-methylphenoxy) acetic acid 400 g/ ℓ (as the phenoxy acetic salt) (potassium salt) 470 g/ ℓ (Reg. No. L5793 Act 36 of 1947)

A selective soluble concentrate hormone type herbicide for the post-emergence control of annual weeds in vines.









Features

- MCPA 400 SL is a phenoxy-carboxylic-acid herbicide and belongs to HRAC Group O.
- Used for post-emergence broadleaf weed control.
- Ideal mixing partner with glyphosate.
- Used in anti-resistant herbicide programmes.
- Very effective against *Raphanus raphanistrum* and *Plantago lanceolate*.
- Used for broad-leaf weed control in cover crops.

Do's and don'ts

- Spray volume must exceed 150 l/ha.
- Avoid applications at low pH levels to prevent gel formation.
- Direct the spray away from the vines and towards the weeds.
- Spray on days with no wind and low temperatures, to prevent the movement of volatile MCPA with convection streams.
- Do not spray if the vineyard is interplanted with any broadleaf row crops.
- Do not use spray equipment afterwards for insecticide or fungicide sprays.
- Do not spray if rain is expected within 2 hours after application, as this could have a negative effect on the results.
- Do not spray onto pruned vines until wounds have sealed properly.





USE RATE[†]

- 5.0 l/ha MCPA 400 SL
- If applied solo in winter rainfall regions apply by knapsack sprayer and avoid spray drift and fine droplets.



REGISTRATION DETAILS†

- MCPA 400 SL Active ingredient: (4-chloro-2methylphenoxy) acetic acid 400 g/l (as the phenoxy acetic salt) (potassium salt) 470 g/l (Reg. No. L5793 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, 20 l





ORION 240 EC

Active ingredient: oxyfluorfen (diphenyl ether) 240 g/l (Reg. No. L7432 Act 36 of 1947)

A selective contact and residual herbicide for the control of annual broad-leaf weeds and grasses in wine grapes.







Features

- ORION 240 EC is a Diphenylether group herbicide and belongs to HRAC Group E.
- ORION 240 EC has both post-emergence and residual action on both broad-leaf and grass weeds.
- ORION 240 EC rapidly binds to clay particles and organic material in the surface soil layer. This along with its low water solubility prevents it from leaching in the soil and being absorbed by the roots of the crop.
- ORION 240 EC controls weeds through a contact action on shoots of germinating seedlings as they emerge through the activated layer.

Do's and don'ts

- Apply only in well-established trellised vines.
- Do not apply later than one month before bud break.
- ORION 240 EC should be applied on a clean soil surface, free of any plant residues that could intercept applied product and result in suboptimal weed control.
- Soil disturbance after application will affect weed control detrimentally.
- Apply ORION 240 EC to moist soil and the soil must remain moist as long as possible, to enhance residual activity.
- Sensitive nearby growing crops may be damaged by the vapour action of ORION 240 EC.

HERBICIDE





USE RATE[†]

- 3.0 to 4.0 l / 500 l water.



REGISTRATION DETAILS† ORION 240 EC Active ingredient: oxyfluor

Active ingredient: oxyfluorfen (diphenyl ether) 240 g (Reg. No. L 7432 Act 36 of 1947) (caution)

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PACKAGING







SERIES 240 EC

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

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









Features

- SERIES 240 EC is a cyclohexanedione herbicide and belongs to HRAC Group A.
- Systemic herbicide that effectively controls a broad spectrum of grass weeds.
- · Ideal mixing parting for glyphosate.
- It rapidly penetrates the cuticle of grasses.
- SERIES 240 EC allows for improved efficacy of glyphosate tolerant rye grass.
- Excellent annual post-emergence grass control.
- Excellent mixing partner with new Winfield adjuvants.

Do's and don'ts

- Only apply to actively growing weeds when temperatures are above 16 °C.
- · Do not apply when cold, wet or when overcast.
- Use higher rates for mature plants and/or dense stands.
- Always use SERIES 240 EC in combination with an ammonium sulphate product.
- Allow at least 4 days after an application before applying any other agrochemical treatment.
- Weeds that have not emerged at the time of application will not be controlled.
- Rain or irrigation within an hour after application may require a follow-up application.







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USE RATE

 0.5-1.0 l SERIES 240 EC plus Link/Direct plus Velocity*Super/Velocity*DryMax or Summit Super.



REGISTRATION DETAILS*

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

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- SUMMIT SUPER Active ingredient: nitrogen solution/ nonionic surfactant 929 g/l (Reg. No. L8539 Act 36 of 1947) (caution)

- VELOCITY® SUPER Active ingredient: ammonium sulphate 500 g/l (Reg. No. L9603 Act 36 of 1947) (caution)

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

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PACKAGING





SKOFFEL® 200 SUPER

Active ingredient: Paraguat ion (bypiridyl) 200 g/l (as dichloride salt) 276 g/l (Reg. No. L6328 Act 36 of 1947)

A water-soluble herbicide for the control of annual grasses and broad-leaf weeds in vineyards.









Features

- SKOFFEL® 200 SUPER is a bypiridylium herbicide and belongs to HRAC Group D.
- Non-selective contact, herbicide which is rapidly absorbed by
- No residual action as it is rapidly inactivated on contact with
- Provides a broad spectrum non-selective alternative to glyphosate.
- Essential management tool in reducing or slowing down the development of glyphosate resistant weeds.
- Fast acting product which damages cell membranes and cytoplasm, resulting in rapid necrosis of weeds within hours.
- Effective control of winter and summer grasses.

Do's and don'ts

- Apply before any signs of bud break in vines.
- Avoid spraying on windy days to prevent drift onto green plant tissue of adjacent crops.
- For optimal performance add SUMMIT SUPER (0.3%) or SUMMIT (0.5%) and VILLA 51 (0.1%).
- Integrate other control methods to prevent the development
- Do not spray when any parts of crops have active growth or areen tissue present.
- Apply when weeds are 10-15 cm high as a directed spray.





- 2,5-5,0 l/ha SKOFFEL® 200 SUPER or - 5.0 l/ha SKOFFEL® 200 SUPER plus

HERBICIDE

2.0 kg/ha TERBUWEED 600 WDG plus 4.5 l/ha SURFLAN 480 SC or 1,5 l/ha METOLACHLOR 960 EC



REGISTRATION DETAILS†

- SKOFFEL® 200 SUPER Active ingredient: Paraguat ion (bypiridyl) 200 q/l (as dichloride salt) 274 q/l (Reg. No. L6328 Act 36 of 1947) (toxic)
- METOLACHLOR 960 EC Active ingredient: metolachlor (chloroacetanilide) 960 g/l (Reg. No. L7136 Act 36 of 1947)

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

- TERBUWEED 600 WDG Active ingredient: Terbuthylazine (triazine) 600 g/kg (Reg. No. L8800 Act 36 of 1947) (caution)
- SURFLAN 480 SC Active ingredient: oryzalin (dinitroaniline) 480 g/l (Reg. No. L7523 Act 36 of 1947) (caution)

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PACKAGING 1ℓ.5ℓ.20ℓ





SLASH PLUS 540 SL

Active ingredient: glyphosate (glycine) 540 g ae/ ℓ (glyphosate potassium salt) 665 g/ ℓ (Reg. No. L8819 Act 36 of 1947)

A soluble concentrate non-selective, systemic post-emergence herbicide with slight or no soil activity for the control of weeds in grapevines.









Features

- SLASH PLUS 540 SL is a glycine herbicide and belongs to HRAC Group G9.
- · Minimum impact on the environment.
- Ideal mixing partner for pre-emergence herbicides.
- Extremely cost-effective active ingredient.
- Reduced competition with weeds for the availability of water, light and nutrients.

Do's and don'ts

- Do not spray whilst weeds are wet, dormant, covered with dust or under any sort of stress (drought, cold, heat, etc.).
- Rain or irrigation within 1 hour after application can adversely effect efficacy.
- Apply before bud break in vines older than 2 years.
- Do not apply when vines have started to translocate reserves from leaves to roots.
- · Younger vines with green bark should be shielded.
- Direct the spray away from the vines and towards the weeds.
- Do not spray onto pruned vines until wounds have sealed properly.
- Always use SLASH PLUS 540 SL in combination with an ammonium sulphate product.







ISE RATET

Early winter: (Weeds under 15cm height)
- 1.0 l/ha plus 3.0 l/ha MCPA 400 SL

Late winter: (Weeds under 30cm height). - 1.3 l/ha plus 4.0 l/ha MCPA 400 SL



REGISTRATION DETAILST

- SLASH PLUS 540 SL Active ingredient: glyphosate (glycine) 540 g ae/l (glyphosate potassium salt) 665 g/l (Reg. No. L8819 Act 36 of 1947) (caution)

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

- MCPA 400 SL Active ingredient: (4-chloro-2-methylphenoxy) acetic acid 400 g/l (as the phenoxy acetic salt) (potassium salt) 470 g/l (Reg. No. L5793 Act 36 of 1947) (harmful)

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PACKAGING 20 ℓ





SLASH 710 SG

Active ingredient: Glyphosate (glycine) 710 g ae/kg (glyphosate ammonium salt) 780 g/kg (Reg. No. L8450 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 grapevines.









Features

- SLASH 710 SG is a Glycine group herbicide and belongs to HRAC Group G9.
- · Systemic herbicide for post emergence weed control.
- Fast dissolving SG formulation.
- Minimum impact on the environment.
- Ideal mixing partner for pre-emergence herbicides.
- Extremely cost-effective active ingredient.
- Reduced competition with weeds for the availability of water, light and nutrients.

Do's and don'ts

- Do not spray while weeds are wet, dormant, covered with dust or under any sort of stress (drought, cold, heat, etc.).
- Rain or irrigation within 1 hour after application can have an adverse effect on efficacy.
- Apply before bud break in vines older than 2 years.
- Do not apply when vines have started to translocate reserves from leaves to roots.
- Younger vines with green bark should be shielded.
- Direct spray onto weeds.
- Do not spray onto pruned vines until wounds have sealed properly.
- Always use SLASH 710 SG in combination with an ammonium sulphate product.



HERBICIDE





USF RATE

Early winter: (Weeds under 15 cm height)
- 0.8 kg/ha plus 3.0 l/ha MCPA 400 SL

Late winter: (Weeds under 30 cm height)
- 1.0 kg/ha plus 4.0 l/ha MCPA 400 SL



REGISTRATION DETAILS†

- SLASH 710 SG Active ingredient: glyphosate (glycine) 710 g ae/kg (glyphosate ammonium salt) 780 g/kg (Reg. No. L8450 Act 36 of 1947) (caution)
- MCPA 400 SL Active ingredient: (4-chloro-2-methylphenoxy) acetic acid 400 g/l (as the phenoxy acetic salt) (potassium salt) 470 g/l (Reg. No. L5793 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 10kg





TERBUWEED 600 WDG

Active ingredient: Terbuthylazine (triazine) 600 g/kg (Reg. No. L8800 Act 36 of 1947)

A water dispersible granule herbicide used for selective control of grasses and most annual broad-leaf weeds.









Features

- TERBUWEED 600 WDG is a triazine herbicide and belongs to HRAC Group C1.
- Photosynthetic electron transport inhibitor.
- Non-selective systemic herbicide absorbed mainly by the roots.
- Low leaching index, therefore only active in the top layer of the soil profile.
- Highly soluble WDG formulation.
- Rapid knockdown of numerous grasses and broad-leaf weeds.
- Ideal mixing partner for all glyphosates and paraguat herbicides.
- Essential management tool in reducing or slowing down the development of glyphosate resistant weeds.







USE RATE

Residual control of *Lolium spp.* and certain broadleaf weeds:

- 3.4 kg/ha TERBUWEED 600 WDG plus 3-5 ℓ/ha Skoffel® 200 Super plus 0.1% Villa 51 plus 0.5-1% Summit.
- 3.4 kg/ha TERBUWEED 600 WDG plus 3.0 l/ha Panga Turbo 450 SL.

Post-emergence application for control of weeds in vines:

- 2.0 kg/ha TERBUWEED 600 WDG plus 5 l/ha Skoffel® 200 Super plus 4.5 l/ha Surflan 480 SL or 1.5 l/ha Platinum 960 EC.



PACKAGING 10kg







TERBUWEED 600 WDG

Active ingredient: Terbuthylazine (triazine) 600 g/kg (Reg. No. L8800 Act 36 of 1947)

A water dispersible granule herbicide used for selective control of grasses and most annual broad-leaf weeds.

Do's and don'ts

- · Apply before bud break in vines.
- · Do not apply to alkaline soils and / or shallow soils that are subject to waterlogging.
- Rye grass must not exceed the 4-leaf stage at time of application.
- Does not control established weeds or weeds that develop from underground vegetative material, e.g. stolon's.
- Do not spray onto pruned vines until wounds have sealed properly.

ALWAYS READ THE LABEL



HERBICIDE



REGISTRATION DETAILS†

- TERBUWEED 600 WDG Active ingredient: Terbuthylazine (triazine) 600 g/kg (Reg. No. L8800 Act 36 of 1947) (caution)
- SURFLAN 480 SC Active ingredient: oryzalin (dinitroaniline) 480 g/l (Reg. No. L7523 Act 36 of 1947) (caution)
- PANGA TURBO 450 SL Active ingredient: glyphosate (glycine) 450 g ae/l. (Reg. No. L8506 Act No. 36 of 1947) (caution)
- PLATINUM 960 EC Active ingredient: metolachlor (chloroacetanilide) 960g/l (Reg. No. L7434 Act No. 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

- SKOFFEL® 200 SUPER Active ingredient: Paraquat ion (bypiridyl) 200 g/l (as dichloride salt) 274 g/l (L6328 Act 36 of 1947) (toxic)

Registration holder: Universal Crop Protection (Pty) Ltd. Reg. No. 1983/008184/07 PO Box 801, Kempton Park, 1620. Tel. (O11) 396-2233









Trade Name	Active Ingredient	Target Species	Crop
	copper oxychloride and sulphur	Anthracnose, Bacterial blight, Downy mildew, Powdery mildew, Dead arm	Wine and table grapes
	cymoxanil and mancozeb	Downy mildew	Wine and table grapes
	dithianon (quinone)	Downy mildew	Wine and table grapes
	dimethomorph and mancozeb	Downy mildew	Wine and table grapes
	tetraconazole (triazole)	Powdery mildew	Wine and table grapes
	fenhexamid (hydroxyanilide)	Botrytis cinerea	Wine and table grapes
	cyprodinil and fludioxonil	Botrytis cinerea	Wine and table grapes
	azoxystrobin (strobilurin)	Powdery mildew, Downy mildew	Table grapes
	penconazole (triazole)	Powdery mildew	Wine and table grapes
	potassium phosphite/ phosphorous acid equivalent	Downy mildew	Wine and table grapes
	spiroxamine (spiroketalamine)	Downy mildew	Wine and table grapes
	sulphur	Powdery mildew	Wine and table grapes
	pyrimethanil (aniline derivative)	Botrytis cinerea	Wine and table grapes
	mancozeb (dithiocarbamate)	Downy mildew, Dead arm	Wine and table grapes
	mancozeb (dithiocarbamate)	Downy mildew, Dead arm	Wine and table grapes

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





COPPASULFA

Active ingredient: Copper oxychloride 85 g/kg + Sulphur 900 g/kg (Reg. No. L5726 Act 36 of 1947)

A dusting powder for the control of various diseases and Mites on wine and table grapes.









Features

- COPPASULFA is an inorganic group fungicide and belongs to FRAC Group M1/2.
- Cost effective-, multi-site active ingredient.
- Short withholding period for table grapes of 3 days.

Do's and don'ts

- High application rates per hectare may cause "burn", especially if applied during high temperatures.
- Do not apply when leaves or bunches are wet, especially after table grapes have reached pea-size stage.
- Do not apply during windy conditions.
- Use as part of a programme and adjust application rates when conditions are favourable for the pathogen.
- Wear protective gear during application.

FUNGICIDE





USE RATE[†]

Anthracnose, Bacterial Blight, Downy Mildew, Powdery Mildew, Erinose Mite and Dead arm:

15-30 kg/ha

- 1st application: 1-2 cm shoot length
- 2nd application: 10 cm shoot length
- Thereafter apply 2-3 times at 2-3 week intervals

Botrytis rot:

15-30 kg/ha

- Apply 6 weeks before harvest and repeat at 7-10-day intervals
- Ensure a light even coverage of bunches



REGISTRATION DETAILS†
COPPASULFA

Active ingredient: Copper oxychloride 85 g/kg + Sulphur 900 g/kg (Reg. No. L5726 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









CYMOXAZEB WP

Active ingredient: Cymoxanil 60 g/kg + Mancozeb 700 g/kg (Reg. No. L7694 Act 36 of 1947)

A wettable powder, preventive and curative fungicide for the control of Downy Mildew (*Plasmopara viticola*) on wine and table grapes.









Features

- CYMOXAZEB WP is a cyanoacetamide-oxime and dithiocarbamate fungicide, that belong to FRAC Group codes 27/M3.
- Double active with both systemic and contact action allows for prolonged persistence.
- Cymoxanil has a preventative and a curative action.
- Controls Downy Mildew in all life cycle stages, also preventing further development of the disease.
- Compatible with PHOSPHITE 400 SL.

Do's and don'ts

- Apply as a medium to full cover spray.
- Apply 1st treatment when the first shoots have reached 10 cm length.
- Repeat treatments every 10-14 days.
- Do not apply after pea-berry size, on table grapes.
- Use in a preventive spray programme along with unrelated preventative fungicides.
- Commence treatment early to ensure protection during the critical stages of flowering and early fruit formation.

FUNGICIDE





USE RATE[†]
- 200 g/100l water



REGISTRATION DETAILS†
CYMOXAZEB WP
Active ingredient: Cymoxanil 60 g/kg +
Mancozeb 700 g/kg
(Reg. No. L7694 Act 36 of 1947)
(caution)

PHOSPHITE 400 SL Active ingredient: Potassium phosphite 560 g/ℓ (phosphorous acid equivalent) 400 g/ℓ (Reg. No. L7468 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 10 kg







DETECT 400 SC

Active ingredient: Dithianon (quinone) 400 g/l (Reg. No. L9182 Act 36 of 1947)

A suspension concentrate fungicide with contact action for the preventative control of Downy Mildew (*Plasmopara viticola*) on wine and table grapes.









Features

- DETECT 400 SC is a quinone fungicide, that belongs to FRAC Group M9.
- · Contact action, with multi-site activity.
- Low risk of resistance due to multi-site activity.
- Suitable substitute product for Mancozeb.
- Easy to measure SC formulation.

Do's and don'ts

- Apply DETECT 400 SC from 10 cm shoot length as part of a spray programme application.
- Must be applied strictly preventively at 7-10 day intervals.
- Reduce spray interval to 7 days if conditions are conducive to disease development.
- Ensure even coverage of the target area.
- Apply just before the point of run-off using 300-1500 ℓ spray mixture per hectare, depending on the growth stage of the vine.
- Repeat the application if rain falls within 2 hours after application.

FUNGICIDE





USE RATE† - 75 ml/100l water



REGISTRATION DETAILS†
DETECT 400 SC
Active ingredient: Dithianon (quinone)
400 g/ℓ
(Reg. No. L9182 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







DIMETHOZEB 690 WP

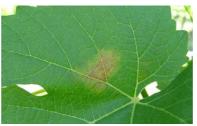
Active ingredient: Dimethomorph 90 g/kg + Mancozeb 600 g/kg (Reg. No. L7985 Act 36 of 1947)

A wettable powder fungicide with preventive and local systemic properties, for the control of Downy Mildew (*Plasmopara viticola*) on grapes.









Features

- DIMETHOZEB 690 WP is a cinnamic acid amide and dithiocarbamate fungicide, that belongs to FRAC Group 40/ M3
- Double active with both systemic and contact action allows for prolonged persistence.
- Dimethomorph contributes to a curative control action.
- Controls Downy Mildew in all life cycle stages, preventing further development of the disease.

Do's and don'ts

- Apply DIMETHOZEB 690 WP in a protective spray programme during the early season, when protection of the flowering and early fruit formation stages is critical, and plants are growing actively.
- Apply 1st treatment when the first shoots have reached 10 cm length.
- Repeat treatments every 10-14 days.
- Do not apply to table grapes after pea-berry size.
- Use in a preventive spray programme along with unrelated preventative fungicides.

FUNGICIDE





USE RATE†
- 200 g/100ℓ water



REGISTRATION DETAILS† DIMETHOZEB 690 WP Active ingredient: Dimethomorph 90 g/kg + Mancozeb 600 g/kg (Reg. No. L7985 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







DOMARK® 100 EC

Active ingredient: Tetraconazole (triazole) 100 g/l (Reg. No. L6757 Act 36 of 1947)

A systemic emulsifiable concentrate fungicide, for the control of Powdery Mildew (Oidium tuckeri) on wine and table grapes.









Features

- DOMARK® 100 EC is a triazole fungicide, that belongs to FRAC Group 3.
- Systemic fungicide with excellent protective and curative properties against Powdery Mildew.
- Only triazole with a favourable PHI for table grapes.

Do's and don'ts

- Apply 1st treatment when shoots are 10-25 cm in length.
- Apply preventatively or at the very early stages of infection, before symptoms are visible on vines.
- Apply as a full cover spray to the point of run-off.
- Ensure thorough coverage of the entire plant, including the bunches.
- Use higher dosage rate if spray interval exceeds 14 days.

FUNGICIDE





USE RATE[†]

- 30 ml/100l water

OF

- 45 ml/100l water



REGISTRATION DETAILS†
DOMARK® 100 EC
Active ingredient: Tetraconazole
(triazole) 100 g/ℓ
(Reg. No. L6757 Act 36 of 1947)
(caution)

Registration holder: Isagro South Africa (Pty) Ltd. 33 Lill Bester Street Brackenhurst 1448 South Africa Reg. No. 1996/009324/07



PACKAGING







ELECTRON 500 SC

Active ingredient: fenhexamid (hydroxyanilide) 500 g/l (Reg. No. L9637 Act 36 of 1947)

A suspension concentrate fungicide with systemic action for the control of *Botrytis Cinerea* on wine and table grapes.









Features

- ELECTRON 500 SC is a hydroxyanilide fungicide, that belongs to FRAC Group 17.
- Highly effective protectant contact fungicide with targeted residual control against Botrytis cinerea.
- Shows no cross resistance to fungicides of other chemical groups, therefore ideal partner for incorporation into spray programme.
- The active ingredient is quickly absorbed into the waxy cuticle of the plant surfaces, making it rain-fast within an hour.
- Short withholding period, can be applied late season.
- Well suited for Integrated Pest Management, safe for bees and other beneficial insects.

Do's and don'ts

- For optimum results apply 1st application at the start of ripening (véraison) and repeat 14 days later.
- Direct spray towards the bunch zone.
- Do not spray past the point of run-off.
- Apply a maximum of two ELECTRON 500 SC treatments per season to adhere to a good anti-resistance strategy.

FUNGICIDE





USE RATE† - 75 ml/100l water

Refer to label for high and low volume application recommendations.



REGISTRATION DETAILS† ELECTRON 500 SC Active ingredient: Fenhexamid (hydroxyanilide) 500 g/l (Reg. No. L9637 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







ELITE 625 WDG

Active ingredient: Cyprodinil 375 g/kg + Fludioxonil 250 g/kg (Reg. No. L10188 Act 36 of 1947)

A water dispersible granular fungicide, with translaminar systemic and contact action, for the control of *Botrytis cinerea* on grapes in winter rainfall areas.









Features

- ELITE 625 WDG is an anilino-pyrimidine and phenylpyrrole group fungicide, that belongs to FRAC Group 9/12.
- No cross resistance due to double active against Botrytis.
- Double active with both systemic and contact action allows for prolonged persistence.
- · Efficacy not affected by cold weather.
- Rain fast within two hours and low acute toxicity to bees.

Do's and don'ts

- For optimum results apply ELITE 625 WDG early as the first Botrytis application in the season.
- Follow a complete spray programme against Botrytis by applying unrelated fungicides for the rest of the application stages.
- Always include alternative remedies in the total spray programme, which will effectively control Botrytis.
- Always spray every row from both sides to ensure good coverage.
- Canopy management during active growing season is recommended to improve spray penetration and coverage.

FUNGICIDE





USE RATE[†]
- 40 g/100l water



REGISTRATION DETAILS† ELITE 625 WDG Active ingredient: Cyprodinil 375 g/kg + Fludioxonil 250 g/kg (Reg. No. L10188 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







ESSENCE 500 WDG

Active ingredient: Azoxystrobin (strobilurin) 500 g/kg (Reg. No. L8956 Act 36 of 1947)

A water dispersible granular systemic fungicide for the control of Downy Mildew (*Plasmopara viticola*) and Powdery Mildew (*Oidium tuckeri*) on table grapes.









Features

- ESSENCE 500 WDG is a strobilurin group fungicide, that belongs to FRAC Group 11.
- The product has a broad range of registrations in South Africa and is also registered in more than 70 countries worldwide.
- ESSENCE 500 WDG is systemic with translaminar action.

Do's and don'ts

- Some evidence of cross-resistance has been documented, which have resulted in issues regarding resistance. Therefore, ensure no evidence of resistance is present in the vineyard or region where the application will take place.
- For optimum results apply from pea-berry size to véraison with a spray interval of 10-14 days.
- Do not use ESSENCE 500 WDG as the first or last application in a spray programme.
- Apply as a high-volume application with correctly calibrated conventional mist blower.
- To control Powdery Mildew successfully, always apply ESSENCE 500 WDG in combination with another registered fungicide, from a different chemical group.









USF RATE

- 40g/100l water
- Water volume (l/ha):
- Prior to flowering: 500 750l water/ha
- Flowering: 750 1000l water/ha
- Post-flowering: 1000 1500l water/ha



REGISTRATION DETAILS† ESSENCE 500 WDG Active ingredient: Azoxystrobin (strobilurin) 500 g/kg (Reg. No. L8956 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





EXCALIBUR 200 EW

Active ingredient: Penconazole (triazole) 200 g/l (Reg. No. L7493 Act 36 of 1947)

An emulsion oil in water, systemic fungicide for the control of Powdery Mildew (Oidium tuckeri) on wine and table grapes.









Features

- EXCALIBUR 200 EW is triazole group fungicide, that belongs to FRAC Group 3.
- Penconazole is taken up by the plant and performs during fungal penetration and haustoria formation.
- Stops the development of fungi by interfering with biosynthesis of sterols in the cell membranes.
- Systemic fungicide with fast uptake and penetration.
- Controls both primary and secondary infections with longlasting preventative and curative action.
- Unique vapour action in dense canopies.

Do's and don'ts

- Apply the 1st application when the first shoots are 10-15 cm long and repeat intervals as indicated.
- Use the higher dosage rate if the spray interval exceeds 14
- Apply as a full cover spray to the point of run-off.
- For optimum control, supplement the EXCALIBUR 200 EW spray programme 2-3 times during the season in combination with SULPHUR (800g/kg).
- Do not exceed a maximum of 4 triazole applications per season.





FUNGICIDE



- 15 ml/100l water (10-14 day intervals)

- 22.5 ml/100l water (18-21 day intervals)



REGISTRATION DETAILS† EXCALIBUR 200 EW Active ingredient: Penconazole (triazole) (Reg. No. L7493 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

DUSTING SULPHUR Active ingredient: sulphur 980 g (Reg. No. L5261 Act 36 of 1947)

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





PACKAGING





PHOSPHITE 400 SL

Active ingredient: Potassium phosphite 560 g/ ℓ (phosphorous acid equivalent) 400 g/ ℓ (Reg. No. L7468 Act 36 of 1947)

A water-soluble systemic fungicide for the control of Downey Mildew (*Plasmopara viticola*) on table and wine grapes.









Features

- PHOSPHITE 400 SL is an phosphonate fungicide and belongs to FRAC Group 33.
- Rapid uptake compared to conventional phosphates.
- Controlled release of P through various stages of crop arowth.
- Enhanced plant and root development.
- Improved plant health, by strengthening cell walls.
- · Low environmental toxicity.
- Slows the growth of the pathogen and inhibits the formation of spores.
- Multiple sites of action, which assist to counter the development of resistance.
- Strong acropetal and basipetal movement within the plant.

Do's and don'ts

- Only use PHOSPHITE 400 SL on actively growing vines when enough sap flow and shoot growth is taking place.
- Do not treat plants if the leaves are wet due to rain or dew as this can lead to possible scorching.
- Apply early morning or late afternoon but cease application 1 hour before an air temperature of 30°C is reached.
- Do not apply within a week of copper application (before or after).
- Higher dosage rate can cause yellowing of young leaves.
- Always use higher rates (400-500 ml/100 ℓ water) for effective control against Downy Mildew.









USE RATE[†]

From 10-15 cm shoot length up to peaberry stage:

- 300-500 ml plus 120-200 g Mancozeb (800 g/kg) per 100 l water.

From pea berry stage to harvest:

- 300 ml/100 l water



REGISTRATION DETAILS†
PHOSPHITE 400 SL
Active ingredient: Potassium phosphite
560 g/ℓ (phosphorous acid equivalent)
400 g/ℓ
(Reg. No. L7468 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 20 l





POTENTIAL 500 EC

Active ingredient: Spiroxamine (spiroketalamine) 500 g/l (Reg. No. L9161 Act 36 of 1947)

A systemic emulsifiable concentrate fungicide for the control of Powdery Mildew (Oidium tuckeri) on table and wine grapes.









Features

- POTENTIAL 500 EC is an amine group fungicide and belongs
- Spiroxamine is a sterol biosynthesis inhibitor fungicide with systemic activity.
- This active ingredient provides control of Powdery Mildew caused by the ascomycetous fungus, *Uncinula* necator (syn. Erysiphe necator) in grapes.
- Ideal mixing partner for either flowable or wettable Sulphur.

Do's and don'ts

- Start spraying when shoots are 3 2-5 cm long.
- Do not apply more than 3 treatments per season.
- Do not apply in table grapes after the first signs of flowering.
- Do not apply it in combination with surfactants, stickers or as a tank mixture with trace or macro element foliar feeds.
- Do not apply POTENTIAL 500 EC and one of the following active ingredients listed below within a week of each other. fenhexamid, deltamethrin, lambda-cyhalothrin, mancozeb, iprodione, copper oxychloride, bromopropylate and folpet.

USE RATE[†]

High volume application 10-14 day programme:

- 60 ml/100l water
- (300-600 ml/ha table grapes)
- 60 ml/100l water (180-900 ml/ha wine grapes)

Water volume (l/ha):

- Shoots 2-5 cm to flowering: 500-750 \empty water/ha (wine and table grapes)
- Flowering to pea berry size 750-1000 \(\ext{water/ha} \) (wine grapes)
- Pea-berry size to harvest 1000-1500 \ell water/ha (wine grapes)



REGISTRATION DETAILS† POTENTIAL 500 EC Active ingredient: Spiroxamine (spiroketalamine) 500 g/l (Reg. No. L9161 Act 36 of 1947)

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



PACKAGING

(harmful)



ALWAYS READ THE LABEL







FUNGICIDE





SULGRAIN 800 WDG

Active ingredient: Sulphur 800 g/kg (Reg. No. L9315 Act 36 of 1947)

A water dispersible granule with fungicidal, insecticidal and miticidal properties for the control of Erinose Mites and Powdery Mildew (*Oidium tuckeri*) on grapevines.









Features

- SULGRAIN 800 WDG is an inorganic fungicide and belongs to FRAC Group M2.
- Forms part of Group 13 Fungicide that targets the G-proteins in early cell signalling.
- Multi-site contact activity, limiting the risk of resistance.
- Even particle size with limited fine powder, minimizing Sulphur burn at high temperatures (>33°C).
- Ideal mixing partner with systemic fungicides.
- More than one mode of action against Powdery mildew.
- Controls Powdery Mildew and Erinose Mites.
- Registered on a wide range of agriculture crops.

Do's and don'ts

- Apply preventatively from 5-10 cm shoot length with 2-4 consecutive applications in 10-14 day intervals.
- Do not apply it during high temperatures, above 33°C.
- Dosage rate is very important and depends on growth stage and disease pressure.
- May be mixed with lime sulphur, parathion products and copper fungicides.

FUNGICIDE





USE RATE†

Erinose Mite

- 150-300 g/100 ℓ water, depending on severity of infestation.

Powdery Mildew

- 3-6 kg/ha SULGRAIN 800 WDG.
- Summer rainfall region: Apply when rainfall is low, or infestation is noticed.
- Winter rainfall region: Apply when shoots are 5-10 cm long and repeat every 3 weeks if necessary.



REGISTRATION DETAILS† SULGRAIN 800 WDG Active ingredient: Sulphur 800 g/kg (Reg. No. L9315 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 25 kg







SUPPORT 400 SC

Active ingredient: Pyrimethanil (aniline derivative) 400 g/l (Reg. No. L9282 Act 36 of 1947)

A suspension concentrate fungicide with systemic action for the control of *Botrytis cinerea* on grapevines.









Features

- SUPPORT 400 SC is an Anilino-Pyrimidine fungicide and belongs to FRAC Group 9.
- Long lasting Botrytis control in grape bunches.
- Compatible with Downy and Powdery Mildew fungicides.
- Cost effective active ingredient.
- Combined systemic, curative and protective properties.

Do's and don'ts

- SUPPORT 400 SC is compatible with INSPECT 400 SC (DETECT 400 SC) and CONNECT 500 WDG, but not with Aluminum containing products.
- Keep within the withholding period on table grapes.
- If 3 or more Botrytis control treatments are applied per season, a maximum of 1 SUPPORT 400 SC treatment may be applied.
- If 4 or more Botrytis control treatments are applied per season, a maximum of 2 SUPPORT 400 SC treatments may be applied, but not consecutively.
- Do not apply as the last Botrytis control treatment in the season.
- Do not add adjuvants when using SUPPORT 400 SC.
- Apply as a high-volume, full cover spray in 1000-1500 \(\ell \) water/ha.







USE RATE[†]
- 120 ml/100l water



REGISTRATION DETAILS†
SUPPORT 400 SC
Active ingredient: Pyrimethanil (aniline derivative) 400 g/l
(Reg. No. L9282 Act 36 of 1947)
(caution)

CONNECT 500 WDG Active Ingredient: Trifloxystrobin (strobilurin) 500 g/kg Reg. No. L9324 Act 36 of 1947 (caution)

INSPECT 400 SC Active ingredient: Dithianon (quinone) 400 g/l (Reg. No. L9182 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





VILLA UNIZEB 750 WDG

Active ingredient: Mancozeb (dithiocarbamate) 750 g/kg (Reg. No. L8812 Act 36 of 1947)

A wettable powder fungicide/acaricide for the prevention and control of Downy Mildew and Dead Arm Disease on grapevines.









Features

- VILLA UNIZEB 750 WP is a dithiocarbamate fungicide and belongs to FRAC Group M3.
- Multi-site protectant, with contact activity.
- Controls all fungi on grapes that tend to prosper during wet periods.
- Compatible with the majority of Powdery Mildew products.
- Highly effective in a preventative programme.
- Registered on a wide range of agriculture crops.
- Excellent wettable granule formulation, with no dust when measuring and disperses easily when mixed in water.

Do's and don'ts

- Do not use with alkaline products.
- Apply 1st application at 5-10 cm shoot length for Downy Mildew and 0.5-1 cm shoot length for Dead Arm Disease.
- Follow-up sprays should be applied at 7-10 day intervals.
- Do not apply on table grapes when berries have reached pea berry size.
- Do not use after infection periods.
- It is a good practice to use in a programme with PHOSPHITE 400 SL.





USF RATE[†]

Downy Mildew (Plasmopara viticola)

- Pre-blossom: 200 g/100 & water (1-1.5 kg/ha)
- Blossom to 80% Calyx fall: 200 g/100 l water (1.5-2 kg/ha)
- Post blossom: 200 g/100 l water (2-3 kg/ha)

Dead Arm Disease (Phomopsis viticola) - 200 g/100 \(\) water (1-1.5 kg/ha)



REGISTRATION DETAILS† VILLA UNIZEB 750 WP Active ingredient: Mancozeb (dithiocarbamate) 750 g/kg (Reg. No. L8812 Act 36 of 1947) (caution)

PHOSPHITE 400 SL Active ingredient: potassium phosphite 560 g/l (phosphorous acid equivalent) 400 g/l (Reg. No. L7468 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

ALWAYS READ THE LABEL







FUNGICIDE

VILLA UNIZEB 800 WP

Active ingredient: Mancozeb (dithiocarbamate) 800 g/kg (Reg. No. L8056 Act 36 of 1947)

A wettable powder fungicide/acaricide for the prevention and control of Downy Mildew and Dead Arm Disease on grapevines.









Features

- VILLA UNIZEB 800 WP is a dithiocarbamate fungicide and belongs to FRAC Group M3.
- Multi-site protectant with contact activity.
- Controls fungi on grapes that tend to prosper during wet periods.
- Compatible with the majority of Powdery Mildew products.
- Highly effective in a preventative programme.
- Registered on a wide range of agricultural crops.

Do's and don'ts

- Do not use with alkaline products.
- Apply 1st application at 5-10 cm shoot length for Downy Mildew and 0.5-1 cm shoot length for Dead Arm Disease.
- Follow-up sprays should be applied at 7-10 day intervals.
- Do not apply on table grapes when berries have reached pea-berry size.
- Do not use after infection periods.
- It is a good practice to use in a programme with PHOSPHITE 400 SL.



FUNGICIDE





USE RATE[†]

Downy Mildew (Plasmopara viticola)

- Pre-blossom: 200 g/100 l water (1-1.5 kg/ha)
- Blossom to 80% Calyx fall: 200 g/100 l water (1.5-2 kg/ha)
- Post blossom: 200 g/100 l water (2-3 kg/ha)

Dead Arm Disease (Phomopsis viticola) - 200 g/100l water (1-1.5 kg/ha)



REGISTRATION DETAILS† VILLA UNIZEB 800 WP Active ingredient: Mancozeb (dithiocarbamate) 800 g/kg (Reg. No. L8056 Act 36 of 1947) (caution)

PHOSPHITE 400 SL Active ingredient: potassium phosphite 560 g/l (phosphorous acid equivalent) 400 g/l (Reg. No. L7468 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 2 kg, 25 kg











Trade Name	Active Ingredient	Use	Crop
	mixed organic buffer system and alcohol ethoxylate surfactant	Mostly with insecticides prone to alkaline hydrolysis	Wine and table grapes
	ammonium sulphate and non-ionic surfactant	Glyphosate and glufosinate	Wine and table grapes
	organic acid and alkali	Mostly with insecticides prone to alkaline hydrolysis	Wine and table grapes
	polyether-polymethylsiloxane-copolymer	Clethodim	Wine and table grapes
	vegetable oils, polyoxy ethylene fatty acid ester	Herbicides	Wine and table grapes
	ammonium sulphate	Glyphosate and glufosinate	Wine and table grapes
	isotridecanol (alkylpolyethylene glycol ether)	Fungicides and insecticides that recommend a surfactant	Wine and table grapes

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



AQUABUFF PLUS

Active ingredient: Mixed organic buffer system and alcohol ethoxylate surfactant 585 g/l (Reg. No. L9210, Act 36 of 1947)

A pH buffer with wetting and spreading properties for use with alkaline-sensitive agro-chemicals or agro-chemicals that require the use of a buffer.

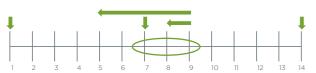
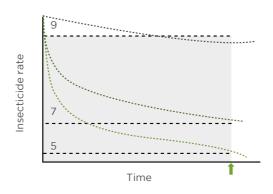


Figure 1: pH-Scale Figure 2: Alkaline hydrolysis



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.
- Contains a surfactant for improved retention and spreading of spray droplets.
- Rate calculation according to water analysis.

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



JSE RATE[†]

- 0.04 0.1% (40 100 ml/100 l spray solution).
- Use the higher rate in water with a high alkalinity (buffering capacity) or when a water analysis indicates it.



REGISTRATION DETAILS† AQUABUFF PLUS

Active ingredient: Mixed organic buffer system and alcohol ethoxylate surfactant 585 g/ ℓ

Reg. No. L9210, 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 and 20 l





CLASS ACT NG

Active ingredient: Ammonium sulphate + non-ionic surfactant 480 g/l (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

60 Glyphosate alone AMS Replacement (0.05%) AMS (1%) CLASS ACT NG (1%)

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.



ADJUVANT



USE RATE

- 1 2 % (1 2 ℓ /100 ℓ spray solution)
- For use with glyphosate 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 Reg. No. 2015/312008/07 PO Box 10413, Aston Manor, 1630 Tel. (011) 396-2233



PACKAGING





COMMODOBUFF

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

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

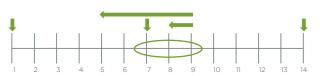
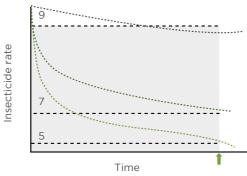


Figure 1: pH-Scale Figure 2: Alkaline



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
- Do not use as a standard practice, but only when labels specifically recommend acidification.



(50 - 100 ml/100 l spray solution)

ADJUVANT

- Use the higher rate in water with a high alkalinity (buffering capacity)



REGISTRATION DETAILS[†] COMMODOBUFF Active ingredient: Organic acid and alkali 660q/l Reg. No. L5390, 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, 20 ℓ







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 certain post-emergence herbicides.

Features

- · Excellent spreading.
- Assists with the absorption process.
- Used with clethodim.

Do's and don'ts

- · Application not for use on trees.
- Add to the spray tank after the crop protection products.

ADJUVANT



°°

USE RATE

- 0.1 % (100 m ℓ /100 ℓ spray solution)
- For use with selected herbicides, like clethodim
- Normally used in conjunction with VELOCITY-DRYMAX with -dim herbicides



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



PACKAGING





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.

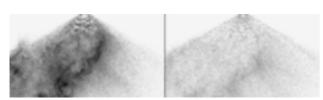


Figure 1: XR nozzle without and with INTERLOCK

Top Middle Lower 1/3

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

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.
- Does not increase the spray solution viscosity.

Do's and don'ts

- Do not use with herbicides that restrict the use of an adjuvant.
- Does not replace other adjuvants because it should be used in conjunction with the recommended adjuvant.
- Only use for weed control. Not for application into trees.
- Do not mix in an induction system or container when the products are undiluted.







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†

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. Reg. No. 2015/312008/07 PO Box 10413, Aston Manor, 1630 Tel. (011) 396-2233



PACKAGING 10 &





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.

Features

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

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.

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



PACKAGING







ADJUVANT

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.
- Registered with leading brand name crop protection products.

Do's and don't s

- Use with crop protection products that recommend VILLA 51, a surfactant or a non-ionic surfactant (NIS)
- Do not use VILLA 51 if a surfactant is not recommended.
- Add to the spray tank after the crop protection products.



USE RATE!

- 0.006 0.018 % (6 18 mℓ /100 ℓ spray solution) for applications onto vines.
- 0.1% 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. Reg. No. 1992/002474/07 PO Box 10413, Aston Manor, 1630. Tel. (011) 396-2233



PACKAGING 5 l, 20 l







PLANT GROWTH REGULATOR





Trade Name	Active Ingredient	Use	Crop
	cyanamide	Even budbreak, advancement of budbreak	Wine and table grapes
	ethephon	Colour improvement	Table grapes
	gibberellic acid	Berry thinning, berry enlargement	Table grapes
	gibberellic acid	Berry thinning, berry enlargement	Table grapes

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





ALERT 520 SL

Active ingredient: Cyanamide 520 g/l (Reg. No. L9719 Act 36 of 1947)

A soluble concentrate plant growth regulator for the promotion of uniform and earlier budbreak in table and wine grapes.









Features

- Cyanamide is a plant growth regulator.
- ALERT 520 SL promotes rest breaking.
- Promotes a more uniform and earlier budbreak.
- Improved management due to more uniform vineyards.
- Promotes an earlier and condensed harvest time.

Do's and don'ts

- Do not mix ALERT 520 SL with insecticides or fungicides at 1.5% or higher dosage rates.
- Ensure complete coverage of the buds for rest break.
- Spray at low pressure (<100 kPa) to prevent any potential damage to the buds.
- Take cumulative cold units during May-July into consideration when determining the dosage rate for even budbreak.
- · Do not mix with pruning wound compounds.
- Cold units through the winter plays a key role in the dose rate required.

PLANT GROWTH REGULATOR





USE RATE[†] Even bud-break:

- Apply 3-5 l/100l water ALERT 520 SL 3-4 weeks prior to expected budbreak, depending on the table grape cultivar Advancement of bud-break:
- Apply 3-5 l/100l water ALERT 520 SL 6-7 weeks before expected budbreak, depending on table grape cultivar



REGISTRATION DETAILS† ALERT 520 SL Active Ingredient: Cyanamide 520 g/l Reg. No. L 9719 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 20ℓ





ETHEPHON 480 SL

Active ingredient: Ethephon 480 g/l (Reg. No. L4776 Act 36 of 1947)

A soluble concentrate plant growth regulator for colour improvement of table grapes.









Features

- Ethephon is a plant growth regulator.
- Ethephon occurs naturally in the grapevine.
- ETHEPHON 480 SL is used to improve colour development.
- · Increased depth and uniformity of berry colour.
- Ideal in areas with little variation between day and night temperatures.

Do's and don'ts

- Apply at véraison and follow-up 7 days later for Flame and Crimson Seedless cultivars.
- Ensure thorough wetting of bunches.
- Climatic conditions play a significant role in colour development and the breakdown of the active ingredient Ethephon.
- Ensure that the MRL levels is lower than the intended target value before picking commences.

PLANT GROWTH REGULATOR





USE RATE[†]

Colour improvement:

- Apply 40-50 ml/100l water ETHEPHON 480 SL depending on table grape cultivar



REGISTRATION DETAILS† ETHEPHON 480 SL Active Ingredient: Ethephon 480 g/l Reg. No. L4776 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 l, 5 l, 20 l







FALGRO® 4 SL

Active ingredient: Gibberellic acid 32 g/l (Reg. No. L6393 Act 36 of 1947)

A water-soluble liquid plant growth regulator for the promotion of certain physiological and morphological effects as indicated on table grapes.









Features

- Gibberellic acid is a plant growth regulator.
- Many forms of Gibberellic acids occur naturally in the grapevine.
- FALGRO® 20 SP promotes berry thinning and increases berry size.
- Reduced cluster compactness achieved with reduced fruit set.
- Reduced fruit set allows the development of larger berries.
- Berry size increase due to an increase in the size and number of cells in the grape berry.

Do's and don'ts

- Ensure thorough wetting of bunches and enclosed leaves.
- Adjust the pH of the spray mixture to between 5.5 and 6.5.
- Do not apply to orchards under stress.
- Application rate and timing is highly cultivar dependent.
- Correct application timing is critical for the success of the treatment.
- Certain table grape cultivars show signs of "toxicity" such as an increase in pedicel thickness resulting in loose berries, if applied at higher Gibberellic acid dosage rates.

treatment. • Certain table grape cultivars show signs of "toxicity" such as







USE RATE[†]

Berry thinning:

 Apply 16-32 ml/100l water FALGRO®
 4 SL depending on table grape cultivar and area

Increased berry size:

 Apply 96 me/100l water FALGRO® 4 SL at depending on table grape cultivar and area



REGISTRATION DETAILS† FALGRO® 4 SL

Active Ingredient: Gibberellic acid 32 g/l/Reg. No. L6393 Act 36 of 1947 (caution)

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



PACKAGING 1 l, 5 l







FALGRO® 20 SP

Active ingredient: Gibberellic acid 200 g/kg (Reg. No. L6394 Act 36 of 1947)

A water-soluble powder plant growth regulator for the promotion of certain physiological and morphological effects as indicated on table grapes.









Features

- Gibberellic acid is a plant growth regulator.
- Many forms of Gibberellic acids occur naturally in the grapevine.
- FALGRO® 20 SP promotes berry thinning and increases berry
- Reduced cluster compactness achieved with reduced fruit
- Reduced fruit set allows the development of larger berries.
- Berry size increase due to an increase in the size and number of cells in the grape berry.
- Easy to use water-soluble sachet formulation.

Do's and don'ts

- Ensure thorough wetting of bunches and enclosed leaves.
- Adjust the pH of the spray mixture to between 5.5 and 6.5.
- Do not apply to orchards under stress.
- Application rate and timing is highly cultivar dependent.
- Correct application timing is critical for the success of the
- Certain table grape cultivars show signs of "toxicity" such as an increase in pedicel thickness resulting in loose berries, if applied at higher Gibberellic acid dosage rates.

PLANT GROWTH REGULATOR





Berry thinning:

- Apply 2.5 - g/100l water FALGRO® 20 SP depending on table grape cultivar

Increased berry size:

- Apply 15 g/100l water FALGRO® 20 SP at depending on table grape cultivar



REGISTRATION DETAILS†

FALGRO® 20 SP

Active Ingredient: Gibberellic acid 200

Reg. No. L6394 Act 36 of 1947

(caution)

Registration holder:

Universal Crop Protection (Pty) Ltd.

Reg. No. 1983/008184/07

P.O. Box 801, Kempton Park, 1620

Tel. (011) 396-2233



PACKAGING 150 gr













Trade Name	Active Ingredient	Use
	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 LUQUID CLEANER

Smaller tanks

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



REGISTRATION DETAILS†
PROTANK LUQUID CLEANER
Active ingredient: Proprietary blend
of phosphate and carbonate salts,
sequestering agents, surfactants and
solvents.

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



PACKAGING



