

GRAPES GUIDE EDITION 1





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New **POWERFUL SOLUTION** on the market



Contains **TWO ACTIVE INGREDIENTS** with complementary modes of action



CROP SAFE and easy to use



Sustainable solution that helps **RESISTANCE PREVENTION**



Associate[®] 240 EC

FUNGICIDE

Associate[®] 240 EC

FUNGICIDE

160 g/ℓ Proquinazid (Quinazolinone) 80 g/ℓ Tetraconazole (Triazole)

Associate[®] 240 EC is an emulsifiable concentrate systemic preventive and residual fungicide for the control of powdery mildew *(Uncinula necator = Oidium tuckeri)* in table grapes.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Associate® 240 EC contains proquinazid and tetraconazole (Caution) + Reg. No. L10358 | Act No. 36 of 1947

RECOMMENDED SPRAY MIXTURE VOLUMES PER Ha:



MODE OF ACTION & CHEMICAL GROUP

Proquinazid is an azanaphtalene fungicide with a novel mode of action extremely active on grape powdery mildew (*Erysiphe necator*). It acts preventively on the fungus by inhibiting appressorium formation and spore germination. **Proquinazid** is a FRAC Group 13 fungicide.

Tetraconazole is a broad-spectrum fungicide possessing protective, curative, and eradicant properties. It belongs to the triazoles chemical group and it is part of the SBI (Sterol Biosynthesis Inhibitors) group, acting by inhibiting the metabolic pathway leading to fungal sterol production. It acts on the vegetative form of fungi blocking the growth of the pathogen mycelium, both outside and inside the treated plant. It shows a very high and long lasting endotherapeutic activity. **Tetraconazole** is FRAC Group 3 fungicide.



GETTING THE BEST FROM ASSOCIATE® 240 EC

Although **Associate® 240 EC** has curative properties, it is best used as a preventative treatment or in the earliest stages of disease development

Apply in a 14-day preventive spray program from 5–10 cm shoot length to 28 days pre-harvest

To ensure good disease control, applications of must be renewed at intervals depending on disease pressure and crop development

Ensure good spray coverage during application





KEY ATTRIBUTES & ADVANTAGES

- **1** Powerful preventative activity
- 2 Curative effect
- **3** Shows excellent crop safety
- 4 Vapour phase activity

PRE-HARVEST INTERVAL	
CROP	DAYS
Table grapes	28



Do not apply more than three applications per season of which no more than two applications of should be applied consecutively

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

COMPLEMENTARY MODES OF ACTION FOR CONTROL OF THE ENTIRE DISEASE CYCLE



Tetraconazole inhibits haustoria formation





Curzate[®] 600 WG

FUNGICIDE

Curzate 600 WG

FUNGICIDE



Curzate[®] **600** WG is a water dispersable granule fungicide, which is locally systemic and offers both preventative and curative control of downy mildew (*Plasmopara viticola*) on table and wine grapes.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Curzate® 600 WG contains cymoxanil (Caution) • Reg. No. L10150 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Curzate® 600 WG contains **cymoxanil** which is a highly active, locally systemic fungicide with preventive and curative action against downy mildew (*Plasmopara viticola*) and belongs to the FRAC fungicide group 27.



GETTING THE BEST FROM CURZATE® 600 WG

Apply preventively or at the early stages of infections before symptoms are visible

Apply sufficient water per hectare to give a good spray coverage of the treated crops

Start spraying when first shoots have reached 10 cm length. Repeat application at 10–14 day intervals. Use a shorter spray interval (7–10 days) when conditions for disease development are very favourable

Curzate® 600 WG is always used in tank mixtures with Mancozeb containing fungicides (Group M3) that has a different mode of action to ensure resistance management



Curzate 600 WG

Do not use on table grapes after pea size stage.

FUNGICIDE

WATER VOLUME (ℓ water/Ha)	Curzate® 600 WG	REGISTERED MANCOZEB 800 WP (Dithans" M45 800 WP NT or Unizeb* 800 WP or Ventum 800 WP or Cozeb* 800 WP)
250	50 g	437.5 g
500	100 g	875 g
1000	200 g	1750 g
1500	300 g	2 625 g

PRE-HARVEST INTERVAL

CROP	DAYS
Wine grapes	28
Table grapes (Do not apply after pea size)	28

- Do not apply to any crop suffering from stress as a result of drought, water logging, low temperature, insect attack, nutrient or lime deficiency or other factors reducing crop growth
- If rain occurs within two hours after treatment, the product performance may be affected and the application must be repeated
- Do not apply more than five applications per season and do not apply within 28 days of harvest

ACKNOWLEDGEMENT OF REGISTERED PRODUCTS

WARNINGS

Dithane[™] M45 800 WP NT (Reg No. L7484, Act No. 36 of 1947) is the registered product of Dow AgroSciences Unizeb[®] 800 WP (Reg No. L8056, Act No. 36 of 1947) is the registered product of Villa Crop Protection (Pty) Ltd. Cozeb[®] 800 WP (Reg No. L5698, Act No. 36 of 1947) is the registered product of Universal Crop Protection (Pty)Ltd. Ventum 800 WP (Reg No. L8691, Act No. 36 of 1947) is the registered product of Nulandis, A division of AECI Limited.

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

Apply as a full cover spray and depending on vine size in 250-1500 ℓ spray mixture per Ha

Dosage per 100 ℓ Water: 20 g/100 ℓ + Registered Mancozeb 800 WP



APPLICATION

COMPATIBILITY

Curzate® 600 WG is usually compatible with most products which have neutral or acidic reactions, when applied according to their manufacturer's instructions. Do not tank mix with products that have alkaline reaction. Tank mixtures that have not been evaluated for physical compatibility and crop safety must first be tested on a limited scale.



KEY ATTRIBUTES & ADVANTAGES

- **1** Rapid uptake by the plant
- 2 Locally systemic, translaminar penetration
- **3** Rainfast within two hours after application
- 4 Activates hypersensitive response in plants limiting the spread of infection



Dithane[™] M45 800 WP NT

FUNGICIDE

Dithane[™] M45 800 WP NT

FUNGICIDE



Dithane[™] M-45 800 WP NT is a wettable powder contact fungicide and acaricide recommended for the prevention and control of downy mildew (*Plasmopara viticola*) on grapes.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Dithane[™] M-45 800 WP NT contains mancozeb (Caution) • Reg. No. L7484 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Mancozeb possesses multi-site activity fungicide group code M3



GETTING THE BEST FROM DITHANE[™] M-45 800 WP NT

Ensure even coverage



COMPATIBILITY

Dithane[™] M-45 800 WP NT is compatible with most fungicides and insecticides, but should not be used with alkaline products, e.g. lime sulphur and bordeaux mixtures.



The amount per Ha must be calculated according to the requirements for high volume application. The following guidelines can be used.

Dithane M45 800 WP NT

HIGH VOLUME SPRAY MIXTURE REQUIRED IN ℓ/Ha



PRE-HARVEST INTERVAL	
CROP	WEEKS
Table grapes	4 to 6



Application should be made before overhead irrigation or expected rain (infection periods)

& ADVANTAGES

1 Multi-site mode of action makes Dithane[™] M-45 800 WP NT a backbone of resistance management programmes

FOR CONTROL OF DOWNY

for downy mildew infections.

MILDEW (Plasmopara viticola)

Apply first spray when young shoots have reached a length of 10 cm. Further sprays should be applied at 7-10 day intervals,

depending on weather conditions favourable

- 2 Uniform particle size results in more even adhesion to leaf surface, thus limiting wash-off
- **3** Vapour phase activity
- 4 150 g of manganese applied with each kilogramme of Dithane™ M-45 800 WP NT
- **5** Mancozeb is considered to be harmless to beneficial arthropods with the exception of predatory mites for which a temporary reduction in the population may be observed

DOSAGE: 200 g/100 *l* water



KEY ATTRIBUTES



Equation[®] PRO

FUNGICIDE



300 g/Kg Cymoxanil (ethyl urea) 225 g/Kg Famoxadone (oxazolidinedione)

Equation® PRO is a preventive and curative fungicide (water dispersible granule) for the control of downy mildew (*Plasmopara viticola*) in wine and table grapes.



MODE OF ACTION & CHEMICAL GROUP

Equation® PRO consists of two unrelated highly active ingredients with unique modes of action namely: **cymoxanil**, a locally systemic fungicide with preventive and curative action and **famoxadone**, a preventive, residual fungicide active on spore formation and germination. Both **cymoxanil** and **famoxadone** are active against downy mildew strains.



GETTING THE BEST FROM EQUATION® PRO

Apply preventively or at the early stages of infections before symptoms are visible on the plants

Apply sufficient water per Ha to give a good spray coverage of the treated crops

Start spraying when first shoots have reached 10 cm length. Repeat application at 10–14 day intervals. Use a shorter spray interval (7–10 days) when conditions for disease development are very favourable



COMPATIBILITY

Equation® PRO is compatible with OLYMP® 100 EW (Reg. No. L6063 Act No. 36 of 1947) and with most products which have neutral or acidic reactions, when applied according to their manufacturer's instructions.

Do not tank mix with products that have alkaline reaction. Tank mixtures that have not been evaluated for physical compatibility and crop safety must first be tested on a limited scale.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Equation® PRO contains cymoxanil and famoxadone (Caution) • Reg. No. L6677 | Act No. 36 of 1947

Apply as a full cover spray and depending on vine size in 500-1 500 l water

Dosage per 100 { Water: 40 g

KEY ATTRIBUTES & ADVANTAGES

- 1 2 unrelated modes of action with complimentary activity
- 2 Preventative as well as curative activity
- **3** Locally systemic activity

4 No visible residues on berries

5 Good environmental profile

6 Rainfast within three hours after application

PRE-HARVEST INTERVAL		
CROP	DAYS	
Wine grapes	28	
Table grapes	28	



The greatest potential for downy mildew development exists when a wet winter is followed by late spring rains. The potential is high as well in the event of early autumn rains. · Do not apply to any crop suffering from stress as a result of drought, water logging, low temperature, insect attack, nutrient or lime deficiency or other factors reducing crop growth

• If rain occurs within three hours after treatment, the product performance may be affected and the application must be repeated

WARNINGS

<u>.</u>

- The local MRL level of Equation[®] PRO may not be applicable
- in all countries where to RSA grapes and grape products are exported. Corteva Agriscience[™] can therefore not be held liable if the import tolerance of other countries is exceeded

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



Karathane[™] STAR 350 EC

FUNGICIDE

Karathane[™]STAR 350 EC

FUNGICIDE



Karathane[™] STAR 350 EC an emulsifiable concentrate fungicide for the control of powdery mildew in table and wine grapes.



MODE OF ACTION & CHEMICAL GROUP

Uncoupler of oxidative phosphorylation. FRAC 29. Chemical group: dinitrophenol.



GETTING THE BEST FROM KARATHANE[™] STAR 350 EC

Karathane[™] STAR 350 EC applied to wet plants or under cold or slow-drying conditions, especially in combination with adjuvants, may result in chlorotic blemishes on leaves

Do not apply to table grapes at any stage when fruit is on the vine

Use only in the pre-blossom and post-harvest periods on table grapes



COMPATIBILITY

Karathane[™] STAR 350 EC is compatible with most products commonly used in vineyards but should not be mixed with Bordeaux mixture, zinc sulphate or lime sulphur and must never be mixed with summer or winter oils. When mixed with endosulfan, copper oxychloride, hexaconazole, penconazole, pyrifenox, foliar fertilizers or trace elements, blemishing of grape berries may occur.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Karathane[™] STAR 350 EC contains meptyldinocap (Caution) • Reg. No. L8640 | Act No. 36 of 1947



WINE GRAPES

40 ml high volume application of 400–1000 ℓ spray mixture per Ha The volume applied per Ha should be adapted to the leaf area present

TABLE GRAPES

40 ml high volume application of 400−1 500 ℓ spray mixture per Ha



KEY ATTRIBUTES & ADVANTAGES

1 Excellent protective, curative and erradicant efficacy

2 Disease control equally effective at low and high temperatures

3 Low resistance risk

PRE-HARVEST INTERVAL

Allow 21 days between last application and harvesting of wine grapes



 Karathane[™] STAR 350 EC applied to wet plants or under cold or slow drying conditions, especially in combination with adjuvants, may result in chlorotic blemishes on leaves

 Do not apply to table grapes at any stage when fruit is on the vine. Use only in the pre-blossom and post-harvest periods

Stand Tall

- AND YOU

Karathane[™]

STAR 350 EC

FUNGICIDE





FUNGICIDE

Talendo[®] FUNGICIDE

200 g/l Proquinazid (Quinazolinone)

An emulsifiable concentrate systemic preventive and residual fungicide for the control of powdery mildew (*Uncinula necator = Oidium tuckeri*) in grapes.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Talendo[®] contains proquinazid (Caution) • Reg. No. L8116 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Talendo[®] is a group code 13 (from subgroup U7) fungicide and contains **proquinazid**, a quinazolinone fungicide with a novel mode of action. **Proquinazid** acts preventively on grape powdery mildew by inhibiting spore germination and has no corrective action on established infections.



GETTING THE BEST FROM TALENDO®

Apply in a 14-day preventive spray program from 5–10 cm shoot length to 28 days pre-harvest

In wine grapes gradually increase the spray volume from 250 ℓ to 1200 ℓ per Ha depending on the vineyard size and density

TABLE GRAPES RECOMMENDED SPRAY MIXTURE VOLUMES PER Ha:





COMPATIBILITY

Talendo® is compatible with Dithane™ M-45 800 WP NT (Reg. No. L2914 Act No. 36 of 1947) in tank mixtures.



KEY ATTRIBUTES & ADVANTAGES

- 1 Redistribution via vapour action to protect both treated and untreated leaves and bunches
- 2 Translaminar and local systemic movement
- **3** Active against various stages of powdery mildew
- 4 Good resistance to wash-off

PRE-HARVEST INTERVAL		
CROP	DAYS	
Wine grapes	28	
Table grapes	28	



Do not apply more than three Talendo® applications per season of which no more than two applications of should be applied consecutively

Enrich Lives



Talendo

FUNGICIDE



Closer[™]240 SC Isoclast[™] active

INSECTICIDE

Closer[®]240 SC Isoclast[®] active

240 g/Kg Sulfoxaflor (Isoclast[™])

Closer[™] 240 SC is a suspension concentrate contact and systemic insecticide, for the control of mealybugs and thrips on grapes



MODE OF ACTION & CHEMICAL GROUP

Closer™ 240 SC is classified under the IRAC group code 4C and contains **sulfoxaflor (Isoclast™)** which works by contact, translaminar and systemic activity against western flower thrips (*Frankliniella occidentalis*) and mealybugs (*Pseudococcus spp*).



GETTING THE BEST FROM CLOSER™ 240 SC

Target the crawler stage of mealybugs

Spray mixture should be maintained between 4–9 pH. A low pH (pH 4 and below) may decrease the residual performance

Should be sprayed as a high-volume cover application

Proper coverage of target area is important

To ensure adequate spray coverage, attention should be given to proper ground speed and calibration as well as conditions such as wind speed, and foliar canopy



COMPATIBILITY

Acidifiers or products that will acidify the spray mixture below pH 4 (e.g. phosphonates, high rates of foliar fertilizers, etc.) should be avoided or buffered back to pH 4–9.

Compatibility with other agrochemicals has not been tested.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Closer[™] 240 SC contains sulfoxaflor (lsoclast[™]) (Caution) • Reg. No. L9694 | Act No. 36 of 1947

CONTROL OF WESTERN FLOWER THRIPS (Frankliniella occidentalis) IN TABLE GRAPES

- Apply 12 ml as a high-volume cover application
 when flower-hoods start detaching
- Under high infestation pressure or an extended flowering period, a follow-up application within 7–10 days may be necessary to obtain adequate protection
- To prevent the development of resistance, rotate to Tracer[™] 480 SC or Delegate[™] 250 WG for follow up applications

CONTROL OF MEALYBUGS (Pseudococcus spp) **IN TABLE AND WINE GRAPES**

 Apply 12 ml as a high volume cover application as soon as crawlers are detected at the base of the shoots or leaves, followed by an additional application of Closer[™] 240 SC within 21–30 days under high infestation pressure

For optimal control dormant applications of a registered product with a different mode of action to Closer[™] 240 SC should precede summer applications



WARNINGS

KEY ATTRIBUTES & ADVANTAGES

- **1** Translaminar activity means insects are controlled on the opposite side of treated leaves
- 2 Controls all mealybug species
- **3** Controls crawlers as well as adults
- 4 Safe for bees when spray deposit has dried
- 5 Minimal impact on ladybirds, lacewings, assassin bugs, predatory mites
- 6 Compatible with a wide range of pesticides

PRE-HARVEST INTERVAL		
CROP	DAYS	
Wine grapes	28	
Table grapes	28	



- Ensure pH of the spray mixture is between 4-9
- Avoid applications when rain is expected within 6 hours of spraying
- Do not exceed three applications in total per season to any one block of table or wine grapes
- As Closer[™] 240 SC will only give 4 weeks control, additional control measures need to be implemented should re-infestation occur

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



Delegate[™]250 WG

INSECTICIDE



250 g/Kg Spinetoram

Delegate^{**} **250 WG** is a water dispersible granule contact and stomach insecticide for the control of various thrips species including western flower thrips (*Frankliniella occidentalis*), false codling moth (*Thaumatotibia leucotreta*), african bollworm (*Helicoverpa armigera*) and banded weevil (*Phylctinus callosus*) on table grapes.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Delegate[™] 250 WG contains spinetoram (Caution) • Reg. No. L8392 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

Delegate[™] 250 WG is classified under the IRAC group code 5A and contains **spinetoram** which has both contact and ingestion activity.



GETTING THE BEST FROM DELEGATE[™] 250 WG

Performs best at pH 5–8

A low pH value (< pH 5) of the spray mixture will decrease the residual performance.

Should be sprayed as a high-volume application on table grapes

Proper coverage of target area is important

To ensure adequate spray coverage, attention should be given to proper ground speed and calibration as well as conditions such as wind speed, and foliar canopy

To delay insecticide resistance target applications preferably against early instar larvae of false codling moth whenever possible



COMPATIBILITY

Acidifiers or products that will acidify the spray mixture below pH 5 (e.g. phosphonates, high rates of foliar fertilizers, etc.) should be avoided or buffered back to pH 5-8

KEY ATTRIBUTES & ADVANTAGES

- 1 Contact and ingestion activity
- **2** Safe to bees when exposed to dry spray residues
- 3 After spray deposit has dried **Delegate™ 250 WG** works mainly by ingestion. Contact effect on beneficial insects should therefore be of short duration
- 4 Short withholding period

PRE-HARVEST INTERVAL	
CROP	DAYS
Table grapes	3





PREVENTION OF EARLY DAMAGE OF THRIPS

- Apply 10 g as a high volume cover application at 80 % capp fall to 100 % blossom, or when monitoring indicates infestation level at or above threshold level
- Depending on the duration of the flowering period or presence of thrips, a follow-up application within 5–7 days of the previous application may be necessary to obtain adequate protection



APPLICATION

CONTROL OF LATE INFESTATIONS OF THRIPS

 Apply 10 g as a high volume cover application when monitoring indicates infestation level at, or above threshold level

CONTROL OF AFRICAN BOLLWORM (Helicoverpa armigera)

• Apply 12 g as a full cover spray when scouting indicates infestation level at, or above threshold level

CONTROL OF FALSE CODLING MOTH (FCM) (Thaumatotibia



- leucotreta) • Apply 20 g as a high volume application when
- pest normally occurs. Apply 2 applications with 3–4 week intervals, starting 8 weeks prior to harvest or as monitoring indicates necessity for control

CONTROL OF BANDED WEEVIL (Phlyctinus callosus)



• Apply 20 g as a full cover spray, ensuring good coverage. Apply as soon as monitoring of cardboard traps indicates presence of weevils, or when feeding damage is observed on lower shoots. A follow up application may be necessary within approximately 14 days. Weevil infestations are normally to be expected from mid October to the end of November

SUGGESTED VOLUME OF SPRAY MIXTURE PER Ha FOR HIGH VOLUME APPLICATION

THE AMOUNT OF DELEGATE" 250 WG PER Ha MUST BE CALCULATED ACCORDING TO HIGH VOLUME REQUIREMENTS FOR A SPECIFIED GROWTH STAGE BY USING THE FOLLOWING GUIDELINES:



- Do not apply directly to foraging bees, or bee colonies. This product is toxic to bees when exposed to direct spray, or wet spray deposit
- Do not apply in muddy water

4

WARNINGS

- A low pH value (< pH 5) of the spray mixture will decrease the residual performance
- Avoid applications when rain is expected within 6 hours of spraying
- Do not enter treated area until spray deposit has dried unless wearing protective clothing
 - Do not apply more than four applications to crop in any one season. Use insecticides from a different chemical group if more than four applications are required
 - Do not apply in more than two consecutive applications or in total more than three times per season to any one block of table grapes







INSECTICIDE

GF-120[™]NF

0,24 g/l Spinosad (Spinosyns)

GF-120[™] NF in a selective concentrate bait for control of mediterranean fruitfly (*Ceratitis capitata*), natal fruitfly (*Ceratitis rosa*), marula fruitfly (*Ceratitis cosyra*) and asian fruitfly (*Bactrocera invadens*) infesting various fruit and vegetable crops. Suitable for use in organic crop production.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: GF-120" NF contains spinosad (Caution) • Reg. No. L7331 | Act No. 36 of 1947



MODE OF ACTION & CHEMICAL GROUP

GF-120[™] NF is classified as a spinosyn (subgroup 5A) insecticide.



GETTING THE BEST FROM GF-120[™] NF

As fruitflies tend to seek shelter in protected parts of plants (on the underside of leaves and on inside leaves of the canopy), an effort must be made to apply the bait to these areas. This way the bait droplets are also protected against direct sunlight and rain which can extend their effectiveness

Where bait is applied to rows both sides of the interrow at the same time (as for slanting trellises) the following 2-3 interrows can be skipped. Do not skip more than 2 interrows for overhead trellises where only one side of the interrow is treated. The untreated zone between applications swaths should never exceed 10 m

Bait applications against fruitflies should be carried out throughout the year with the shorter intervals during the summer months or when monitoring traps indicate an increasing population or when fruit begins to ripen

Use longer intervals only if fruitfly counts remain very low for an extended period (less than 2 flies per trap over 3–4 weeks). In summer months, repeat application every 7–14 days

During the winter months when populations are normally at their lowest the intervals can be increased to 21–28 days

To prevent build-up of fruitfly numbers outside unharvested orchards, all orchards or vineyards, including post-harvest orchards, should be kept under a fruitfly control programme until the last fruit/vegetable or grapes have been harvested

Sanitation is also critical to good fruitfly control. Clean picking and removal of fallen or unharvested over-ripe fruit or vegetables is of utmost importance

Mixed bait must be used within 12 hours



KEY ATTRIBUTES & ADVANTAGES

- **1** GF-120[™] NF is specifically formulated to have a high viscosity. This high viscosity extends the lifetime of the bait droplets after application and thereby ensures longer activity against fruitflies
- 2 Applying GF-120[™] NF bait at lower volumes and more concentrated droplets is more cost effective

PRE-HARVEST INTERVAL

1Day



- Avoid droplets of the GF-120[™] NF bait on berries/fruit by directing the application to the under side of the trellis roof, above the bunch/fruit line for slanting trellises and in between the bunch line for overhead trellises
- · The effective control of fruitfly numbers by baiting single vineyards cannot be guaranteed if fruitfly control is not applied to surrounding orchards, vineyards or field crops
- Although GF-120[™] NF is more resistant to wash-off from dew or light rain than conventional baits, the efficacy of GF-120[™] NF will be impaired by persistent cycles of heavy dew or rain, and will require a repeat application

APPLICATION

Apply GF-120[™] NF at a dosage rate of 1–1.2 ℓ per Ha in 4-29 l water per Ha (5-30 l bait mixture) to the underside of the trellis roof

Application must be repeated every 7–14 days depending on weather conditions and fruitfly pressure. Use the shorter interval on ripening grapes

When GF-120[™] NF is applied post-harvest or to nonbearing vineyards providing shelter to fruitflies, a droplet size of 4–6 mm and a spray volume of 5–30 ℓ bait mixture per Ha can be considered. These larger droplets have a longer life span and greater attractant potential as they act as mini bait stations





Tracer[™]480 SC

INSECTICIDE

Tracer[®] 480 SC

480 g/l Spinosad (Naturalyte)

Tracer[™] 480 SC is a suspension concentrate contact and stomach insecticide for the control of insects on table grapes.



MODE OF ACTION & CHEMICAL GROUP

Tracer™ 480 SC is classified under the IRAC group code 5A and contains **spinosad** (*Naturalyte*) which works by contact and systemic activity against american (african) bollworm (*Helicoverpa armigera*) and thrips (Various species including western flower thrips – *Frankliniella occidentalis*) on table grapes.



GETTING THE BEST FROM TRACER™ 480 SC

Tracer[™] 480 SC will perform best at pH 6-9

Although the pH of the spray mixture does not have an effect on the initial knockdown performance of **Tracer^{**} 480 SC**, a low pH value (< pH 6) of the spray mixture will decrease the residual performance

To ensure adequate spray coverage, attention should be given to ground speed and calibration, wind speed, and foliar canopy

As a single corrective spray against bollworm, **Tracer™ 480 SC** is more effective against early instar larvae

Depending on the duration of the flowering period or presence of thrips, a follow-up application within 5–7 days may be necessary to obtain adequate protection



COMPATIBILITY

Before tank mixing **Tracer[™] 480 SC** with other products, a pH and compatibility test (jar test) using relative proportions of tank mix products should be conducted prior to mixing in the spray tank.

When adding wetting agents to the spray mixture, a compatibility test needs to be carried out.

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Tracer^{***} 480 SC contains spinosad (Caution) • Reg. No. L6557 | Act No. 36 of 1947





KEY ATTRIBUTES & ADVANTAGES

- 1 Tracer[™] 480 SC can be recommended for IPM programmes in various crops
- 2 Ecocert certification for use in organic production
- **3** Safe for beneficial insects after spray deposit has dried
- **4** Low mammalian toxicity
- **5** Effective by both contact and ingestion

PRE-HARVEST INTERVAL	
CROP	DAYS
Table grapes	28

- WARNINGS
 - Do not apply in muddy water
 - Acidifiers or products that will acidify the spray mixture below pH 6 (e.g. phosphonates, high rates of foliar fertilizers, etc.) should be avoided or buffered back to pH 6-9
 - Do not apply Tracer[™] 480 SC in more than two consecutive applications per season



Apply Tracer[™] 480 SC as a high volume, cover application when scouting indicates infestation level at, or above threshold level.

THE AMOUNT OF TRACER" 480 SC PER Ha MUST BE CALCULATED ACCORDING TO HIGH VOLUME REQUIREMENTS FOR A SPECIFIED GROWTH STAGE BY USING THE FOLLOWING GUIDELINES Suggested volume of spray mixture per Ha for high volume application







Gallant[™]SUPER

HERBICIDE



108 g/ ℓ Haloxyfop-R Methyl Ester (pyridinyl-oxyphenoxy compound)

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



MODE OF ACTION & CHEMICAL GROUP

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



GETTING THE BEST FROM GALLANT[™] SUPER

For annual grasses best results are obtained when they are at the 2–6 leaf stage while with paspalum spp. best results are obtained when application is made at the early flowering stage

Rain or irrigation within one hour after application of **Gallant™ SUPER** may necessitate a second spray

When **Gallant[™] SUPER** is used, the optimal efficacy thereof will be obtained in water of pH 4,5–5,5. Water of a higher or lower pH than 4,5–5,5 should be buffered to pH 4,5–5,5



COMPATIBILITY

Gallant[™] SUPER may be tank-mixed with the glyphosate products Mamba[™] 360 SL (L4817) or Mamba[™] MAX 480 SL (L7714). The warnings, precautions, use restrictions and directions for use on the labels of Mamba[™] 360 SL and Mamba[™] MAX 480 SL must be fully adhered to.

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

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





KEY ATTRIBUTES & ADVANTAGES

1 Although the observable effect of spraying may not be seen for up to 2–3 weeks after spraying, **Gallant[™] SUPER** does cause immediate cessation of cell division in the plant and therefore growth

WITHHOLDING PERIOD

Minimum number of days between last application and harvest or grazing

40 Days



- The efficacy of Gallant[™] SUPER may be reduced by very hard water (> 1000 p.p.m. slutes) and by water with a high pH value
- Weeds which have not germinated at the time of application will not be controlled. Grass weeds must be actively growing and not under drought stress during application as this can limit uptake and translocation
- Use the spray mixture without delay and do not allow to stand for prolonged periods

Keep Growing



Kerb[™]FLO 400 SC

HERBICIDE





Kerb[™] FLO 400 SC is a suspension concentrate herbicide for use against pre-emergence to early post-emergence of annual winter grasses in orchards in the winter rainfall region.



MODE OF ACTION & CHEMICAL GROUP

Kerb[™] FLO 400 SC is a soil-acting herbicide with uptake occurring through the roots of germinating and newly emerged sensitive grasses. Sufficient rain or irrigation (≥15 mm) in one precipitation within 5 days of application is essential to leach the Kerb[™] FLO 400 SC into the root zone of sensitive weeds.



GETTING THE BEST FROM KERB[™] FLO 400 SC

For best results water (rain or overhead irrigation) is required within one to five days after application.

For best results annual grasses should not be beyond the 3 leaf stage and the area to be treated should be relatively free (<10% of soil surface) of organic material or surface litter coverage (dead or decaying weeds, leaves, mowing clippings, etc.)

Apply to a soil surface which is moist and has settled (due to rain or irrigation breaking up soil clods or smoothening loose soil caused by cultivation processes)

The soil surface should be relatively fine, even and firm without large clods, it should be free of excessive organic and surface material (dead or rotting weeds, leaves, plant cuttings etc.)

Should only be applied in winter as the chemical is more active in cool conditions. Warmer conditions promote degradation and shorter residual effects

Apply preferably in dormant stage of vineyards

Use prepared spray mix without delay and do not allow to stand for prolonged periods

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

DOSAGE: 1.9 - 3.8 ℓ/Ha



1 Kerb[™] FLO 400 SC is not absorbed through leaves and acts mainly through root absorption

- 2 Good residual control
- **3** Controls glyphosate, fop and dim resistant rye grass (*Lolium spp*) as well as many other common grasses in vineyards.



- When applied after bud burst, the spray should be directed to the soil - do not apply over any crop parts after bud burst
- Do not apply to orchards or vines within 10 months after transplanting
- High temperatures and low or no rainfall shortly after application can have a negative influence on the effectiveness
 - · Do not spray over the trees or vines. Direct the spray to the soil surface



GRAPES GUIDE EDITION 1

FOR MORE INFORMATION CONTACT THE REGISTRATION HOLDER: Dow AgroSciences Southern Africa (Pty) Ltd Reg. No. 1967/007147/07 Maxwell Office Park, Magwa Building, Ground Floor, Magwa Crescent, Waterfall City, Midrand, 1686, South Africa • DuPont de Nemours South Africa (PTY) Ltd • Block B, 1st Floor, 34 Whiteley Road, Melrose Arch, South Africa

ALWAYS USE ACCORDING TO LABEL RECOMMENDATIONS: Associate[®] 240 EC contains proquinazid (Quinazolinone) and tetraconazole (Triazole) (Caution) | Reg. No L10358 | Act No. 36 of 1947. • Curzate[®] 600 WG contains cymoxanil (ethyl urea) (Caution) | Reg. No L10350 | Act No. 36 of 1947. • Dithane[®] M-45 800 WP NT contains mancozeb (dithiocarbamate) (Caution) | Reg. No L2010 | Reg. No L36 of 1947. • Equation[®] PRO contains cymoxanil (ethyl urea) and famoxadone (oxazolidinedione) (Caution) | Reg. No L8640 | Act No. 36 of 1947. • Carathane[®] STAR 350 EC contains meptyldinocap (Caution) | Reg. No L8640 | Act No. 36 of 1947. • Close[®] 240 SC contains spinopard (Guinazolinone) (Caution) | Reg. No L816 | Act No. 36 of 1947. • Close[®] 240 SC contains spinotram (Caution) | Reg. No L9694 | Act No. 36 of 1947. • Close[®] 240 SC contains spinotram (Caution) | Reg. No L9694 | Act No. 36 of 1947. • Close[®] 240 SC contains spinotram (Caution) | Reg. No L974. • Trace[®] 480 SC contains spinosad (Spinosyns) (Caution) | Reg. No L8540 | SC contains spinosad (Naturalyte) (Caution) | Reg. No L974. • Trace[®] 480 SC contains spinosad (Naturalyte) (Caution) | Reg. No L557 | Act No. 36 of 1947. • Gallant[®] SUPER contains haloxyfop-R-methyl (Caution) | Reg. No L4962 | Act No. 36 of 1947. • Gallant[®] SUPER contains propyzamide (benzamide) (Caution) | Reg. No L4065 | Act No. 36 of 1947.

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For more information, contact a Corteva Agriscience[™] sales representative. Paarl: 021 860 3620 | Centurion: 012 683 5700 Local Emergency Number: 082 895 0621 | 24 Hour Emergency Number: +32 3 575 555

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