DELEGATE® 250 WG

INSECTICIDE

Registration number/Registrasie nommer L8392 Act/Wet Nr. /No. 36 of / van 1947
N-AR 1502

READ THE LABEL BEFORE USE

KEEP OUT OF REACH OF CHILDREN AND ANIMALS

GROUP	**5A**	**INSECTICIDES**

A water dispersible granule contact and stomach insecticide for the control of insects on agricultural crops as listed.	'n Water dispergeerbare korrel, kontak- en maaginsekdoder vir die beheer van insekplae in landbougewasse soos aangedui.

WARNING

HAZARD STATEMENTS:
Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS:
Collect spillage.
Dispose of contents/container in accordance with applicable regulations.

Active Ingredient/Aktiewe Bestanddeel

Spinetoram …….…….... 250 g/kg …… …… Spinetoram

Net mass ……..…….…. g ……..…….…. Netto massa

REGISTRATION HOLDER / REGISTRASIEHOUER
CORTEVA AGRISCIENCE RSA (PTY) LTD / (EDMS) BPK
REG NO 1991/003030/07
Lakefield Office Park, Block A, 2nd Floor
272 West Avenue, CENTURION, 0157 South Africa
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Batch No. ……..
Date of Manufacture …….
Expiry Date .....

…….. Lot Nr.
….. Datum van Vervaardiging
..... Vervaldatum

UN NO: 3077

Poison Centre: +27(0)861-555-777
Local Emergency No: +27(0)82-895-0621 (SA only)
24 Hour Emergency Tel No: +32-3-575-5555
Information Hotline Tel No: +27(0)12 683-5700

DELEGATE® 250 WG/2025-02-10

WARNINGS

HAZARD STATEMENTS:
Very toxic to aquatic life with long lasting effects.

Withholding period- Minimum time between last application and harvest:

Apples	7 days
Apricots	7 days
Avocado's	7 days
Berries	7 days
Cruciferae (All)	21 days
Cherries	7 days
Citrus	7 days
Figs	7 days
Hops	3 days
Maize	21 days
Nectarines	7 days
Olives	14 days
Peaches	7 days
Pears	7 days
Persimmons	7 days
Plums	7 days
Pomegranates	7 days
Potatoes	3 days
Prunes	7 days
Rooibos tea	21 days
Table Grapes	3 days
Tomatoes	3 days
Tree nuts (Almonds, Cashews, Chestnuts, Hazelnuts, Macadamia nuts, Pecans, Pistachio nuts, Walnuts, Coconuts, Brazil nuts and Pine nuts)	7 days

NOTE: Compliance with these withholding periods will ensure that residues do not exceed local Maximum Residue Limits. However, the import tolerances of other countries may differ, and local residue limits and withholding periods may possibly not comply with those of other countries. If the crop to be treated is intended for export, consult the relevant importer or exporting body regarding the use of this product, Maximum Residue Limits, and recommended withholding periods.

AERIAL APPLICATION: Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water or adjacent areas.

- Handle with care.
- May cause slight eye irritation.
- Toxic to fish and toxic to aquatic invertebrates. Do not apply directly to open water.

- Beneficial Insects:
  "Moderately Toxic to Bees".
  - ❖ This product is toxic to bees when exposed to direct spray, or wet spray deposit.
  - ❖ Do not apply directly to foraging bees, or bee colonies.
  - ❖ Apply only during night to crops in flower or where other foraging vegetation is within 500 m from the spraying area.
  - ❖ Allow at least 3 hours between application and foraging period of bees.
  - ❖ **DELEGATE® 250 WG** will not interfere with the activities of honeybees once the spray deposit has dried.
  - ❖ Studies conducted revealed no adverse effects on bee brood.

Co-ordinate in this regard with neighbors, beekeepers and local extension services when applying in the vicinity of crops in flower.

Parasitoids: "Slightly harmful".
Predatory mites: "Harmless to slightly harmful to some species".
Predatory beetles e.g., Coccinellidae: "Relatively Harmless".
Neuroptera: "Harmless".
Lacewings Neuroptera: "Relatively Harmless".
Predatory bugs: "Relatively Harmless".
After the spray deposit has dried **DELEGATE® 250 WG** works mainly by ingestion. Contact effect on beneficial insects should therefore be of short duration.

- Store in a cool and dry place, away from food and feedstuffs.
- Keep out of reach of children, uninformed persons, and animals.

Re-entry interval: Do not enter treated area until spray deposit has dried unless wearing protective clothing.

DISCLAIMER:

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal climatic and storage conditions; quality of dilution water; compatibility with other substances not indicated on the label and the occurrence of resistance of the pest against the remedy concerned as well as by the method, time and accuracy of application. The registration holder, furthermore, does not accept responsibility for damage to crops, vegetation, the environment, or harm to man or animal, or for lack of performance of the remedy concerned, due to failure of the use to follow the label instructions or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS

PRECAUTIONARY STATEMENTS:
Collect spillage.
Dispose of contents/container in accordance with applicable regulations.

Store in original labeled container, tightly closed and in a locked, dry, cool, and well-ventilated area, well away from foodstuffs.

Avoid inhalation of spray mist.

Wash with soap and water after use or accidental skin contact.

Wear gloves and face shield when handling.

Avoid contamination of skin and eyes. In case of accidental contact with eyes, wash with running water for at least 15 minutes. Get medical attention if irritation persists.

Do not eat, drink or smoke whilst mixing or applying.

Wash hands and face before eating, drinking, smoking, or using the toilet.

Avoid spray drift onto adjacent crops, grazing, rivers, and dams.

Clean all spray equipment before using for other remedies and dispose of wash water in areas already sprayed where it will not contaminate crops, grazing, rivers, dams, and water sources.

Invert the empty container for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse empty container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsings to the contents of the spray tank before destroying the container by perforation, flattening, and burying and do not use for any other purpose.

Prevent contamination of food, feedstuffs, drinking water and eating utensils by handling, storage, or disposal.

RELEVANT SUBSTANCES:

COMPONENT	CAS NO	CONCENTRATION (% w/w)
Spinetoram J & L (CAS # 187166-40-1 & 187166-15-0)	935545-74-7	24,96
Spinosyn D	131929-63-0	0,0291
Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate	Not Assigned	>= 3 - < 10
Substances with a workplace exposure limit:		
Kaolin	1332-58-7	>= 30 - < 40

FIRST AID MEASURES:

Inhalation
Move person to fresh air. If a person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth-to-mouth use rescuer protection (pocket mask, etc.). Call a poison control center or doctor for treatment advice.

Skin contact
Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Eye contact:
Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses if present, after the first 5 minutes, then continue rinsing your eyes. Call a poison control center or doctor for treatment advice. A suitable emergency eye wash facility should be available in the work area.

Ingestion
No emergency medical treatment is necessary.

NOTE TO PHYSICIAN
No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor or going for treatment.

Insecticide Resistance Management (IRM)

The classification scheme of insecticides is based on "mode of action" **DELEGATE® 250 WG** is classified as a spinosyn (IRAC subgroup 5) insecticide. Do not apply more than 4 (four) applications of **DELEGATE® 250 WG** to any crop in any one season. Use insecticides from a different chemical group if more than four (4) applications are required.

Any insect population may contain individuals naturally resistant to **DELEGATE® 250 WG** and other spinosyns. The resistant individuals will eventually dominate the insect population if these insecticides are used repeatedly over long periods or to consecutive generations. **DELEGATE® 250 WG** or other spinosyn insecticides may not control these resistant insects. Local experts should be consulted for resistance strategies and specific recommendations. It is recognized that resistance of insects and mites to insecticides and acaricides can also result from enhanced metabolism, reduced penetration or behavioral changes that are not linked to any site of action classification but are specific for individual chemicals or chemical groupings. Despite this, alternation of compounds from different chemical classes remains a viable anti-resistance management technique.

To delay insecticide resistance

- Avoid the exclusive repeated use of insecticides from the same chemical subgroup.
- Do not use less than recommended label rates of any insecticides.
- Target applications preferably against early instar larvae and eggs of the pest whenever possible.
- Include proven cultural and biological control practices within an Integrated Pest Management Program.

Integrated Pest Management (IPM) Programme:

DELEGATE® 250 WG can be recommended for IPM programs in various crops. **DELEGATE® 250 WG** should be applied when field scouting/monitoring indicates target pest populations have reached the economic threshold. Other than reducing the target pest species as food source, **DELEGATE® 250 WG** used under GAP, does not have a significant impact on certain, parasitic, or predaceous insects and mites, including ladybirds, lacewings, assassin bugs, predatory mites, etc. Although **DELEGATE® 250 WG** is classified as "harmful" to Parasitoids, field studies showed a rapid recovery of numbers after application.

If **DELEGATE® 250 WG** is tank mixed with any insecticide that reduces its selectivity in preserving beneficial predatory insects, then the full benefit of **DELEGATE® 250 WG** to the IPM program may be reduced.

AERIAL APPLICATION

Aerial application of **DELEGATE® 250 WG** may only be done by a registered aerial application operator using a registered and correctly calibrated aircraft according to the instructions of SANS 10118 (Aerial Application of Agricultural Pesticides). Ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met;

- Volume: A spray mixture volume of 30 liters per hectare is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
- Droplet coverage: 30 to 40 droplets per cm^2 must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 250 to 280 microns is recommended: Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
- Flying height: Maintain the height of the spray boom at 3 to 4 meters above the target. Do not spray when aircraft dives, is in a climb or when banking.
- Use suitable atomizing equipment that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomizers within the inner 60 to 75 % of the wingspan to prevent droplets from entering the wingtip vortices.
- The difference in temperature between the wet and dry bulb thermometers of a whirling hygrometer, should not exceed 8°C.
- Stop spraying if the wind speed exceeds 15 km/h.
- Stop spraying under turbulent, unstable, and dry conditions during the heat of the day.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following:
  - reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage),
  - damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- Ensure that the Aerial Spray Operator knows exactly which fields to spray.

Obtain an assurance from the Aerial Spray Operator that the above requirements will be met, and that relevant data will be compiled in a logbook and kept for future reference.

DIRECTIONS FOR USE: **Use only as indicated**

DELEGATE® 250 WG is a water dispersible granule, which should be mixed with water and applied as a foliar spray with ground equipment equipped for conventional insecticide application. **DELEGATE® 250 WG** works by both contact and ingestion activity. Exposed larvae stop feeding immediately but can take up to 3 days to mortality. Proper coverage of target area is important.

MIXING INSTRUCTIONS:

Mixing DELEGATE(R) 250 WG alone:

Fill the spray tank with water to about half of the total spray volume required. Start agitation and add the required amount of **DELEGATE® 250 WG** (Pre-mix with water before adding) to the spray tank. Continue mixing and agitation while filling the spray tank to the required spray volume. Maintain sufficient agitation during application to ensure uniformity of the spray mix. Do not allow water or spray mixture to back-siphon into the water source.

Compatibility, pH and tank mixing:

Do not apply **DELEGATE® 250 WG** in muddy water. Although the pH of the spray mixture does not have an effect on the initial knockdown performance of **DELEGATE® 250 WG**, a low pH value (< pH 5) of the spray mixture will decrease the residual performance. Buffer agents are generally not needed. 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. **DELEGATE® 250 WG** will perform best at pH 5 - 8.

Compatibility may be influenced by the formulation of other products as well as the quality of spray water. If compatibility is unknown a physical compatibility test (jar test) using relative proportions of tank mix products should always be carried out prior to mixing in the spray tank. **DELEGATE® 250 WG** is compatible with light to medium narrow range mineral oil on citrus. Refer to the mineral oil labels for directions regarding their use.

A compatibility test should be done for each different type of foliar fertilizer utilizing the mixing water source. Vigorous, continuous agitation during mixing, filling and throughout application is required for all tank mixes. Back flow sparger pipe agitators, at the bottom of the spray tank, generally provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid mixing air into the spray mixture.

Mixing Sequence for Tank Mixes:

Fill the spray tank with water to approximately one quarter of the total spray volume required. Start agitation. Add different formulation types in the order indicated below, allowing time for complete mixing and dispersion after addition of each product. Allow extra mixing and dispersion time for water dispersible granule (dry flowable) (WG) products.

Add different formulation types in the following order:

1. First pre-mix **DELEGATE® 250 WG** with water before adding to partly filled spray tank. Maintain agitation and fill spray tank to three-quarters of total spray volume. Then add:
2. Water dispersible granules (WG). (After pre-mixing with water)
3. Wettable powders (WG) or water dispersible powders (WS) after pre-mixing with water.
4. Suspension concentrates (SC).
5. Capsulated suspensions (CS).
6. Emulsifiable concentrates (EC) or Emulsion oil in water concentrates (EW).
7. Foliar Fertilizers – after pre-mixing with water.

Finish filling the spray tank while maintaining continuous agitation during mixing, final filling and throughout application. If spraying and agitation must be stopped before the spray tank is empty, settled materials must be resuspended before spraying is resumed. A back flow sparger agitator at the bottom of the tank is particularly useful for this purpose.

Premixing:

Dispersible granule (WG) and Wettable Powder (WP) formulations may be pre-mixed with water (slurried) and added to the spray tank through a mesh screen. This procedure assures good initial dispersion of these formulation types.

Rain fastness: Avoid applications when rain is expected within 6 hours of spraying.

APPLICATION

Proper application techniques help ensure thorough spray coverage and the correct dosage necessary to obtain optimum control of insect pests. The following recommendations are provided for effective application of **DELEGATE® 250 WG.** 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.

Application for row crops:

Use conventional ground spray equipment calibrated to provide thorough coverage of the target crop. Align the boom and nozzles to obtain uniform coverage of the target crop. Under certain conditions, nozzles on drop arms may be required to obtain uniform crop coverage. Use hollow cone nozzles suitable for insecticide spraying.

Follow manufacturer's recommendations for ideal spacing, pressure and boom height.

Application for Fruit tree crops:

Use conventional orchard spray equipment correctly calibrated to provide thorough coverage of the target crop and correct rate per hectare.

Deciduous fruit trees:

DELEGATE® 250 WG should be sprayed on deciduous fruit trees using equipment and methods that will ensure proper coverage of the target area. Except for situations where high volume applications are specifically recommended, low volume applications (max. 4x) may be considered providing the equipment is suitable or adapted for low volume application and conditions are favorable for optimum coverage of the target area.

Rate per ha should preferably be calculated according to the formula for *"high volume requirements" (*HVR), using "*Unrath's Formula*" for *"Tree Row Volume*" (TRV).

$$TRV = \frac{\text{Tree Height (TH)* x Tree Width (TW)* x 937}}{\text{Distance between Rows (RW)}} = \text{HVR in liters per ha}$$

*(Tree height and tree width should be measured during summer when trees are in full flush)

Directions for Application Volumes (AV) at different growth stages and the calculation of rate per ha, based on High Volume Requirements (HVR)

Growth Stage	Application Volume
Bud Break to Full Blossom	60 % x HVR
75 % Petal Fall to One Month Later (Mid Season)	80 % x HVR
Mid Season to Post Harvest, Before Leaf Drop	100 % x HVR

$$\text{Rate per ha} = \frac{\text{HVR in ℓ / ha x Rate per 100 ℓ}}{100}$$

Application on Table Grapes

DELEGATE® 250 WG should be sprayed as a high-volume application on table grapes. 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.

Growth Stage	Suggested volume of spray mixture per ha for high volume application
2,5 – 25 cm shoot length	500 – 750 l
25 cm shoot length to just prior flowering	750 – 1000 l
Flowering to pea berry stage	1000 – 1200 l
Pea berry stage to harvest	1200 – 1500 l

CROP/PEST	DOSAGE/100 l WATER	REMARKS
AVOCADOS Thrips *(Thripidae* spp*)*	10 g	Commence spraying at the first signs of thrip presence. Repeat application when necessary. Apply it as a light cover spray. Thorough cover of the target area is essential.
False Codling Moth *(Thaumatotibia leucotreta)*	20 g	Apply **DELEGATE® 250 WG** as a high-volume application when pest normally occurs. Apply at least 2 applications with 3-4 week intervals, starting 2 – 3 months prior to harvest or as monitored. If additional applications are required use a product with a different mode of action. RESISTANCE NOTE: Do not apply **DELEGATE® 250 WG** in more than two (2) consecutive applications for Thrip control at any time or in total more than four (4) applications per season to any one block of Avocados. Alternate the use of **DELEGATE® 250 WG** with registered insecticides with a different mode of action. **NOTE:** Avoid applying **DELEGATE® 250 WG** whilst bees are foraging. Apply at night if applications are required during this period.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
BERRIES **Blackberries, Blueberries, Strawberries, Boysenberries, Youngberries and Raspberries**		
African Bollworm (*Helicoverpa armigera*)	12 g	Apply **DELEGATE® 250 WG** as a full cover spray when scouting indicates infestation level at, or above threshold level. **Note:** As a single corrective spray against bollworm, **DELEGATE® 250 WG** is more effective against early instar larvae. An application at the Bollworm rate will control Thrips as well.
Thrips Various species including Western Flower Thrip (*Frankliniella occidentalis*)	10 g	Commence spraying at the first signs of thrip presence. Repeat application when necessary. Apply it as a light cover spray. Thorough cover of the target area is essential. Repeat application if necessary.
Spotted wing fruit fly (*Drosophila suzukii*)	10 – 12 g	Treat when pests appear, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications but follow resistance management guidelines. **Resistance Note:** Do not apply **DELEGATE® 250 WG** in more than two (2) consecutive applications for Thrip control at any time or in total more than three (3) applications per season to any one block of berries. Alternate the use of **DELEGATE® 250 WG** with registered insecticides with a different mode of action.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
CRUCIFERAE (All cruciferae crops) Fall army worm (*Spodoptera frugiperda*)	100 - 120 g/ha	Apply **DELEGATE® 250 WG** as a full cover spray at a minimum of 500 l **/**ha every 7-10 days. Start application when pest is first noticed or apply as a follow-up application in a spray program after insecticides from a different class as required in anti-resistant programs. Apply a minimum of two consecutive **DELEGATE® 250 WG** sprays to ensure effective control of pests. Use the higher rate when a corrective application is made. The lower rate may be used for follow-up applications when applied in a spray program. **Use the shorter spray interval of 7 days when heavy infestations occur or when climatic conditions favor the pest e.g., during summer months.**
CITRUS African Bollworm *(Helicoverpa armigera)*	12 g	Do not apply more than 4 applications per season. Apply **DELEGATE® 250 WG** as a full cover spray when scouting indicates infestation level at, or above threshold level. **Note:** As a single corrective spray against bollworm, **DELEGATE® 250 WG** is more effective against early instar larvae. An application at the Bollworm rate will control Thrips as well.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
CITRUS		
Citrus thrips *(Scirtothrips aurantii)*	10 g	**Ground Application:** Commence spraying after 90 % petal fall at the first signs of thrip presence. Repeat application when necessary. Apply it as a light cover spray. Thorough cover of the target area is essential.
	300 - 500 g/ha	**Aerial application:** Apply at first signs of infestation. Repeat application when necessary. A spray mixture volume of at least 30 litres per hectare is recommended. Follow guidelines as indicated under "aerial application", ensuring good coverage is achieved as required for control of this pest. Application for control of thrips will also control bollworm. Use higher rate under high infestation pressure. **RESISTANCE NOTE:** Do not apply **DELEGATE® 250 WG** in more than two (2) consecutive applications for Thrip control at any time or in total more than four (4) applications per season to any one block of Citrus. Alternate the use of **DELEGATE® 250 WG** with registered insecticides with a different mode of action.
False Codling Moth (*Thaumatotibia leucotreta*)	20 g Where the spray volume exceeds 5000 l/hectare the rate of 12 g/100 l may be used.	Apply **DELEGATE® 250 WG** as a high-volume application at 8 and 4 weeks prior to harvest. **<u>Resistance management:</u>** For control of False Codling Moth do not apply **DELEGATE® 250 WG** in total more than two times per season. Use registered insecticides with a different mode of action for further control measures.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
FIGS Black fig fly (*Silba adipata*) African Bollworm (*Helicoverpa armigera*)	12 g	Apply **DELEGATE® 250 WG** as a full cover spray. Thorough cover of the target area is essential. Start applications as soon as the pests are noticed or expected. Usually between September and January. Repeat applications as necessary. **Resistance Management.** For resistance management, **DELEGATE® 250 WG** should not be applied in total more than three times per season on Figs. If additional applications are required, use an insecticide with a different mode of action.
HOPS African Bollworm (*Helicoverpa armigera*)	12 g	Apply **DELEGATE® 250 WG** as a full cover spray when scouting indicates infestation level at, or above threshold level. **Note:** As a single corrective spray against bollworm, **DELEGATE® 250 WG** is more effective against early instar larvae. **Resistance management.** For resistance management, **DELEGATE® 250 WG** should not be applied in total more than three times per season on Hops. If additional applications are required, use a product with a different mode of action.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
MAIZE, SWEETCORN Fall army worm (*Spodoptera frugiperda*)	100 - 120 g/ha	**MAIZE:** Do not apply to crops under drought stress. Apply **DELEGATE® 250 WG** to crops that are growing vigorously and apply up to the stage before the tassels/ears are enclosed by the flag leaf of the maize. **Treat before larvae enter the stalks, larvae that have already tunneled into the funnels will not be controlled.** Use 300 l / ha spray volume. The first application must be made when 10 % of the plants show shothole damage. For sweetcorn apply when shothole damage is visible. When the larvae are bigger than 10 mm or a re-infestation occurs, a second application may be necessary within 10-14 days after the first application.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
MAIZE, SWEETCORN (cont.) Fall army worm (*Spodoptera frugiperda*)		Larvae that are present in the stems of plants at application will not be controlled. For sweetcorn apply preventatively or as soon as shothole damage is observed. Apply over the funnel of plants and ensure thorough coverage. If re-infestation occurs a repeat application may be required within 10-14 days. The first application must be made when 10% or less of the plants show shothole damage. For sweetcorn apply preventatively or as soon as shothole damage is observed. Apply over the funnel of plants and ensure thorough coverage. If re-infestation occurs a repeat application may be required within 10-14 days. Use higher rate where larger larvae are present (>15-20 mm). **Note:** Do not apply **DELEGATE® 250 WG** in more than two consecutive applications or in total more than three times per season.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
OLIVES African Bollworm (*Helicoverpa armigera*)	12 g	Apply **DELEGATE® 250 WG** as a full cover spray when scouting indicates infestation level at, or above threshold level. **Note:** As a single corrective spray against bollworm, **DELEGATE® 250 WG** is more effective against early instar larvae. An application at the Bollworm rate will control Thrips as well.
Olive beetle (*Argopistis oleae*) (*Argopistis sexvittus*) (*Argopistis capensis*)	20 g	Apply **DELEGATE® 250 WG** as a full cover spray. Thorough coverage of the target area is essential. Start applications as soon as the pest or any damage on the leaves is noticed. Infestations normally coincide with a new growth flush. Repeat applications as necessary. **Resistance management.** For resistance management, **DELEGATE® 250 WG** should not be applied in total more than three times per season on Olives. If additional applications are required, use an insecticide with a different mode of action.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
PERSIMMONS		
Thrips – various species including Western Flower Thrip (*Frankliniella occidentalis*)	10 g	Commence spraying at the first signs of thrip presence. Repeat application when necessary. Apply as a light cover spray ensuring thorough coverage of the target area.
African Bollworm (*Helicoverpa armigera*)	12 g	Apply **DELEGATE® 250 WG** as a high-volume cover application when scouting indicates infestation level at or above the threshold level. Apply a follow-up application if necessary. **Note:** As a single corrective spray against bollworm, **DELEGATE® 250 WG** is more effective against early instar larvae. An application at the Bollworm rate will control Thrips as well.
False Codling Moth (*Thaumatotibia leucotreta*)	20 g	Apply **DELEGATE® 250 WG** as a high-volume application when pest normally occurs. Apply at least 2 applications with 3-4 week intervals, starting 2 – 3 months prior to harvest or as monitored. If additional applications are required use a product with a different mode of action. **Resistance management.** For resistance management, **DELEGATE® 250 WG** should not be applied in total more than four times per season on Persimmons.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
POME FRUIT – APPLES AND PEARS		
African Bollworm (*Helicoverpa armigera*)	12 g	Apply **DELEGATE® 250 WG** as a full cover spray when scouting indicates infestation level at, or above threshold level. **Note:** As a single corrective spray against Bollworm, **DELEGATE® 250 WG** is more effective against early instar larvae.
Codling moth (*Cydia pomonella*)	16 g (Maximum rate of 500 g/ha – based on 2500 l/ha spray volume)	Apply **DELEGATE® 250 WG** as a full cover spray. Thorough cover of the target area is essential. Start applications at the beginning of a moth generation or in the case of the first generation, at ¾ petal fall and repeat at 14-day intervals for a maximum of two (2) consecutive applications. Although **DELEGATE® 250 WG** can be used on any generation of Codling Moth, the positioning of **DELEGATE® 250 WG** will be determined by the specific control strategy that is followed. When application of **DELEGATE® 250 WG** is aimed at egg hatch (based on a Degree Day Model in orchards under mating disruption) the determination of Biofix and calculation of following egg hatch is of critical importance. Consult your consultant in this regard.
Codling moth (*Cydia pomonella*)		**Resistance Management:** To comply with resistance management strategies **DELEGATE® 250 WG** should be applied to only one generation of Codling Moth per season. Registered products with a different mode of action should be used for the treatment of the other generations of Codling Moth. **DELEGATE® 250 WG** should not be applied in total more than two (2) times per season on Apples and Pears for control of Codling Moth.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
POME FRUIT – APPLES AND PEARS (cont.) Codling moth (*Cydia pomonella*)		If **DELEGATE® 250 WG** is applied for the control of the last generation of the season, then a product with a different mode of action must be used for control of the first generation in the following season.
Spotted wing fruit fly (*Drosophila suzukii*)	12 - 16 g	Treat when pests appear, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications but follow resistance management guidelines. For resistance management, **DELEGATE® 250 WG** should not be applied in total more than three times per season on Apples and Pears. If additional applications are required, use a product with a different mode of action.
APPLES Banded fruit Weevil (*Phlyctinus callosus)*	16 g (A registered wetter may be added if required)	Apply **DELEGATE® 250 WG** 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. Do not exceed more than three applications of **DELEGATE® 250 WG** on Apples in one season, including the applications made against Codling Moth.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
POMEGRANATES Thrips Various species including Western Flower Thrip (*Frankliniella occidentalis*)	10 g	Apply **DELEGATE® 250 WG** as a high-volume application when scouting indicates infestation level at, or above threshold level. Depending on the duration of the flowering period and the infestation level of Thrips a follow-up application may be necessary.
African Bollworm *(Helicoverpa armigera)*	12 g	Apply **DELEGATE® 250 WG** as a light cover spray as soon as Thrip presence is noticed. Ensure thorough coverage of the target. Apply a follow-up application if necessary. **Note:** As a single corrective spray against bollworm, **DELEGATE® 250 WG** is more effective against early instar larvae. An application at the Bollworm rate will control Thrips as well.
False Codling Moth (*Thaumatotibia leucotreta*)	20 g	Apply **DELEGATE® 250 WG** as a high-volume application when pest normally occurs. Apply at least 2 applications with 3-4 week intervals, starting 2 – 3 months prior to harvest or as monitoring indicates necessity for control. If additional applications are required, use a product with a different mode of action. **Resistance management.** For resistance management, **DELEGATE® 250 WG** should not be applied in total more than three times per season on Pomegranates.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
POTATOES Potato Tuber Moth larvae (*Phthorimaea operculella*) Potato Leaf Miner (*Liriomyza huidobrensis*)	150 g/ha (A registered wetter may be added if required)	Apply in a spray program as a full cover spray at 500 – 1000 l/ha spray mixture every 7 – 10 days. Start application when the pests are first noticed or apply as a follow-up application in a spray program after insecticides from a different class as required in anti-resistance programs. Apply a minimum of two consecutive **DELEGATE® 250 WG** sprays to ensure effective control of pests. The volume of spray mixture to be applied per ha depends on the plant size and plant density. Start with a minimum of 500 l spray mixture per ha on young plants and increase volume up to 1000 l/ha as plant size increases. Use the shorter spray interval of 7 days when heavy infestations occur or when climatic conditions favor the pest e.g., during summer months or when beneficial insects are absent.
Tomato leaf miner moth (*Tuta absoluta)*	200 g/ha (a registered wetter may be added if required)	
Potato Tuber moth larvae (*Phthorimaea operculella*) Potato Leaf Miner (*Liriomyza huidobrensis*)		For the purpose of a resistance strategy do not apply **DELEGATE® 250 WG** in more than four (4) consecutive applications in a 28-day period. Rotate **DELEGATE® 250 WG** in a spray program with a different chemical class of insecticide for the duration of at least one generation of the pest. Do not apply **DELEGATE® 250 WG** in more than a total of four (4) applications per cultivation. Ridge at least twice during growing season (Tuber Moth).

CROP/PEST	DOSAGE/100 l WATER	REMARKS
ROOIBOS TEA African Bollworm (*Helicoverpa armigera*)	12 g	Apply **DELEGATE® 250 WG** as a full cover spray when scouting indicates infestation level at, or above threshold level. **Note:** As a single corrective spray against bollworm, **DELEGATE® 250 WG** is more effective against early instar larvae. **<u>Resistance management.</u>** For resistance management, **DELEGATE® 250 WG** should not be applied in total more than three times per season on Rooibos Tea. If additional applications are required, use a product with a different mode of action.
STONE FRUIT PEACHES, NECTARINES, PLUMS, APRICOTS, PRUNES AND CHERRIES African Bollworm (*Helicoverpa armigera*)	12 g	Do not apply more than three (3) applications per season. Apply **DELEGATE® 250 WG** as a full cover spray when scouting/monitoring indicates infestation level at, or above threshold level. **Note:** As a single corrective spray against bollworm, **DELEGATE® 250 WG** is more effective against early instar larvae. NB: Larvae should not be bigger than 5 mm.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
STONE FRUIT PEACHES, NECTARINES, PLUMS, APRICOTS, PRUNES AND CHERRIES (cont.)		
False Codling Moth (FCM) (*Thaumatotibia leucotreta*)	20 g	An application against Bollworm will contribute to control Oriental Fruit Moth, providing the registered rate against Oriental Fruit Moth is applied within seven (7) days after application of the Bollworm rate. Apply **DELEGATE® 250 WG** as a full cover application in one to three of the following applications. Commence applications 6 - 8 weeks prior to harvest or when regular moth catches are recorded. Repeat applications against FCM at fourteen (14) day intervals. Sprays against FCM will also control Codling Moth and Oriental Fruit Moth. **NOTE:** See "Resistance Management" on Stone Fruit below.
Spotted wing fruit fly (*Drosophila suzukii*)	16 - 20 g	Treat when pests appear, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications but follow resistance management guidelines.
PEACHES AND NECTARINES		
Oriental Fruit Moth (OFM) (*Cydia molesta*)	20 g	Apply **DELEGATE® 250 WG** as a full cover application in not more than two consecutive applications or in total more than three (3) applications per season to any one block of stone fruit. Repeat applications at fourteen (14) day intervals or spray on recommended Degree Days. (Consult your advisor if in doubt concerning the application of the Degree Day Model for OFM in your area). Applications for OFM will also control FCM and Codling Moth. **NOTE:** See "Resistance Management" on Stone fruit below.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
NECTARINES, PLUMS AND CHERRIES Thrips (Various species including Western Flower Thrip – WFT (*Frankliniella occidentalis*)		Early thrip damage normally occurs during the period of early blossom to shortly after blossom. Damage caused by WFT may also occur as late infestations shortly before harvest (See Prevention of Silvering). Hot weather conditions favor thrip activity. Recommended monitoring methods should be adhered to, especially during the susceptible stage.
Early damage	10 g	Apply **DELEGATE® 250 WG** during full blossom up to 75% petal fall as a high-volume cover application when scouting/monitoring indicates infestation of pest at/or above threshold levels. Depending on the duration of the flowering period and the infestation level of Thrips, a follow-up application within 7 – 10 days may be necessary to obtain adequate protection. To suppress thrip populations at early blossom (10 - 50 % blossom) rather consider chemicals with a different mode of action. Do not disturb the orchard floor or apply weed control during the blossom period. **Note:** See “resistance management” on stone fruit below.
Prevention of Silvering	10 g	Apply **DELEGATE® 250 WG** as a high-volume cover application when first Thrip activity, responsible for silvering, is noticed. Adhere to pre-harvest interval. For export ensure requirements are met.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
NECTARINES, PLUMS AND CHERRIES (cont.) Prevention of Silvering		**RESISTANCE MANAGEMENT ON STONE FRUIT:** False Codling Moth (FCM), Oriental Fruit Moth (OFM) and Thrips: Do not apply in total more than three (3) applications of **DELEGATE® 250 WG** per season to any one block of Stone Fruit. If the aim is only FCM, do not apply in more than two consecutive applications. Alternate the use of **DELEGATE® 250 WG** within the same season by using registered products with a different mode of action.
Spotted wing fruit fly (*Drosophila suzukii*)	16 - 20 g	Treat when pests appear, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications but follow resistance management guidelines.
TABLE GRAPES Thrips (Various species including Western Flower Thrip – WFT (*Frankliniella occidentalis*)	10 g	**Early damage:** the presence of Thrips and their associated damage on grapes occurs mainly during the period of early flowering to shortly after flowering. **Late damage:** In some areas and under certain conditions (hot and dry weather) thrips may occur at a later stage (normally at veraison). The presence of Thrips should therefore be monitored on a regular basis. Control measures should be considered when scouting/monitoring indicates infestation at, or above threshold levels.
Thrips – prevention of early damage	10 g	Apply **DELEGATE® 250 WG** as a high-volume cover application at 80 % cap 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 Thrip, a follow-up application within 5 – 7 days of the previous application may be necessary to obtain adequate protection.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
TABLE GRAPES (cont.)		
Thrips – prevention of late damage	10 g	For control of late infestations apply **DELEGATE® 250 WG** as a high-volume cover application when monitoring indicates infestation level at, or above threshold level. Adhere to pre-harvest interval. For export ensure requirements are met.
African Bollworm *(Helicoverpa armigera)*	12 g	Apply **DELEGATE® 250 WG** as a full cover spray when scouting indicates infestation level at, or above threshold level. **Note:** As a single corrective spray against bollworm, **DELEGATE® 250 WG** is more effective against early instar larvae.
False Codling Moth (FCM) (*Thaumatotibia leucotreta*)	20 g	Apply **DELEGATE® 250 WG** 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. If additional applications are required, use a product with a different mode of action.
Banded Weevil (*Phlyctinus callosus)*	20 g	Apply **DELEGATE® 250 WG** 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.
Spotted wing fruit fly (*Drosophila suzukii*)	16 - 20 g	Treat when pests appear, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications but follow resistance management guidelines. **Resistance management:** Do not apply **DELEGATE® 250 WG** in more than two consecutive applications or in total more than three times per season to any one block of Table Grapes.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
TOMATOES Tomato leaf miner moth (*Tuta absoluta*)	200 g/ha (a registered wetter may be added if required)	Apply in a spray program as a full cover spray at 500 – 1000 l/ha spray mixture every 7 – 10 days. Start application when pests first noticed or apply as a follow-up application in a spray program after insecticides from a different class as required in anti-resistance programs. Apply a minimum of two consecutive **DELEGATE® 250 WG** sprays to ensure effective control of pests. The volume of spray mixture to be applied per ha depends on the plant size and plant density. Start with a minimum of 500 l spray mixture per ha on young plants and increase spray volume up to 1000 l/ha as plant size increases. Use the shorter spray interval of 7 days when heavy infestations occur or when climatic conditions favor the pest e.g., during summer months or when beneficial insects are absent. For the purpose of a resistance strategy do not apply **DELEGATE® 250 WG** in more than four (4) consecutive applications in a 28-day period. Rotate **DELEGATE® 250 WG** in a spray program with a different chemical class of insecticide for the duration of at least one generation of the pest. Do not apply **DELEGATE® 250 WG** in more than a total of four (4) applications per cultivation.

CROP/PEST	DOSAGE/100 l WATER	REMARKS
TREE NUTS (Almonds, Cashews, Chestnuts, Hazelnuts, Macadamia nuts, Pecan nuts, Pistachio nuts, Walnuts, Coconuts, Brazil nuts and Pine nuts)		
Thrips Various species	10 g	Commence spraying at the first signs of thrip presence. Repeat application when necessary. Apply as a light cover spray ensuring thorough coverage of the target area.
False Codling Moth (*Thaumatotibia leucotreta*) Nut borer (*Thaumatotibia batrachopa*)	20 g	Apply **DELEGATE® 250 WG** as a high-volume application when pest usually occurs. Normally from the beginning of November to end of December. Recognized monitoring practices need to be carried out to determine the presence of pests. Apply two to three applications in this period if additional applications are required use a product with a different mode of action. **<u>Resistance management:</u>** For resistance management, **DELEGATE® 250 WG** should not be applied in total more than three times per season on Pecan, Macadamia, and other nut crops.

Local emergency No: +27(0)82-895-0621 (SA only)
24 Hour emergency Tel No: +32-3-575-5555
Information hotline Tel No: +27(0)12) 683-5700