

DELEGATE 250 WG

REG. NO. L8392 ACT No. 36 of 1947 / WET Nr. 36 van 1947

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.
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IRAC: INSECTICIDE GROUP CODE

5A

IRAC: INSEKDODER GROEP KODE

Active Ingredient/Aktiewe Bestanddeel

Spinetoram 250 g/kg Spinetoram

Net mass g Netto massa

REGISTRATION HOLDER / REGISTRASIEHOUER
 DOW AGROSCIENCES SOUTHERN AFRICA (PTY) LTD / (EDMS) BPK
 REG NO 1967/007147/07
 PRIVATE BAG X160 PRIVAATSAK
 BRYANSTON 2021
 SOUTH AFRICA

*Trademark of/Handelsmerk van Dow AgroSciences

Batch No. Lot Nr.

Date of Manufacture Datum van Vervaardiging

UN NO: 3077

Tygerberg Poison Information Centre: (021) 931-6129
 Griffon Poison Information Centre: 082-446-8946
 24 Hour Emergency Tel No: (032) 533-0716
 Information Hotline Tel No: (012) 361-8112

DELEGATE 250 WG/2012-07-16



**CAUTION
VERSIGTIG**



WARNINGS

Withholding period - Minimum time between last application and harvest:

Apples	7 days
Apricots	7 days
Berries	7 days
Cherries	7 days
Citrus	7 days
Figs	7 days
Nectarines	7 days
Olives	14 days
Peaches	7 days
Pears	7 days
Pecan, Macadamia and other nut crops	7 days
Persimmons	7 days
Plums	7 days
Pomegranates	7 days
Potatoes	3 days
Prunes	7 days
Rooibos tea	21 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.

- 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 honey bees once the spray deposit has dried.
 - ❖ Studies conducted revealed no adverse affects on bee brood.

Co-ordinate in this regard with neighbours, 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 eg. Coccinellidae: "Relatively Harmless".

Neuroptera: "Harmless".

Lacewings Neuroptera: "Relatively Harmless".

Predatory bugs: "Relatively Harmless".

After 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.

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

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 area 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.

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.

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 recognised that resistance of insects and mites to insecticides and acaricides can also result from enhanced metabolism, reduced penetration or behavioural 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 Programme.

Integrated Pest Management (IPM) Programme:

DELEGATE 250 WG can be recommended for IPM programmes 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 programme may be reduced.

MIXING INSTRUCTIONS:

Mixing DELEGATE 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 utilising 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.

Rainfastness: 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 to 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 favourable 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).

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

*(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

$$\text{Rate per ha} = \frac{\text{HVR in } \ell / \text{ha} \times \text{Rate per 100 } \ell}{100}$$

CROP/PEST	DOSAGE/100 ℓ WATER	REMARKS
<p>PECAN, MACADAMIA AND OTHER NUT CROPS</p> <p>Thrips Various species</p> <p>False Codling Moth (<i>Thaumatotibia leucotreta</i>)</p>	<p>10 g</p> <p>20 g</p>	<p>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.</p> <p>Apply DELEGATE 250 WG as a high volume application when pest usually occurs. Normally from end of November to harvest. Apply two to three applications in this period, if additional applications are required use a product with a different mode of action.</p> <p><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.</p>
<p>PERSIMMONS</p> <p>Thrips – various species including Western Flower Thrip (<i>Frankliniella occidentalis</i>)</p> <p>American/African Bollworm (<i>Helicoverpa armigera</i>)</p>	<p>10 g</p> <p>12 g</p>	<p>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.</p> <p>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.</p> <p>Note: As a single corrective spray against bollworm, DELEGATE 250 WG is more effective against early instar larvae.</p> <p>An application at the Bollworm rate will control Thrips as well.</p>