



The miracles of science™

CORAGEN™

Reg. No. L8529 Act No. 36 of 1947

Reg. Nr. L8529 Wet Nr. 36 van 1947

A suspension concentrate stomach and contact insecticide for the control of false codling moth in citrus.

'n Suspensie konsentraat maag en kontak insekdoder vir die beheer van valskodlingmot in sitrus.

INSECTICIDE GROUP CODE 28 INSEKDODER GROEP KODE

ACTIVE INGREDIENT

chlorantranilprole
(anthranilic diamide)

200 g/l

AKTIEWE BESTANDDEEL

chlorantranilprool
(antraniliese diamied)

Net Volume

**500mℓ, 1ℓ,
& 3ℓ**

Netto Volume

**REGISTERED BY /
GEREGISTREER DEUR:**

DUPONT DE NEMOURS SOUTH AFRICA
(PTY) LTD
Co. Reg. No. 2009/014079/07
P O BOX / POSBUS 3332
HALFWAY HOUSE 1685
Tel: (011) 218-8600

**24 Hour/Uur Emergency
Number/Noodnommer:
083 123 3911**

BATCH NUMBER
DATE MANUFACTURED

LOTNOMMER
DATUM VERVAARDIG

UN No. / VN Nr. 3082

**CAUTION
VERSIGTIG**

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WARNINGS:

- **WITHHOLDING PERIODS:** The following minimum number of days (withholding periods) between last application and harvest must be adhered to:
Citrus 7
- Handle with care.
- This product is not likely to be hazardous by inhalation or skin contact.
- This product is toxic to aquatic invertebrates.
- Keep out of the reach of children, uninformed persons and animals.
- Store in the closed labelled original container at temperatures not exceeding 25°C away from food and feed.
- Use of this material in a manner or at a time other than in accordance with the directions may cause excessive residues or other undesirable results.
- **RE-ENTRY:** Do not enter treated area until spray deposit has dried.

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 user 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 immediately in the event of any uncertainty.

PRECAUTIONS:

- Do not inhale spray mist.
- Do not enter treated areas until the sprayed solution has dried.
- Persons in contact with the insecticide should wear protective clothing (long-sleeved shirts and long pants, shoes with socks and gloves).
- Wash yourself after application of the product.
- Wash contaminated clothing after working with the product.
- In case of eye contact wash immediately with plenty of water.
- In case of ingestion call a physician or poison centre.
- Do not eat, drink or smoke whilst applying or mixing, or before washing hands and face.
- Prevent contamination of feed, food, eating utensils and drinking water.
- **DO NOT APPLY DIRECTLY TO AND PREVENT DRIFT ONTO OTHER EDIBLE CROPS THAN INDICATED ON THE LABEL, GRAZING, RIVERS, DAMS AND AREAS NOT UNDER TREATMENT.**
- Clean applicator after use and dispose of wash water where it will not contaminate crops, grazing, food or water.
- Rinse the empty container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsate to the contents of the spray tank before destroying the container.
- Destroy empty container by perforation and flattening, and never re-use for any other purpose.

RESISTANCE WARNING

CORAGEN™ is a group code 28 insecticide. Any insect population may contain individuals naturally resistant to **CORAGEN™** and other group code 28 insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **CORAGEN™** or any other group code 28 insecticide.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate with products from different insecticide group codes.
- Integrate other control methods (chemical, cultural, biological) into insect control programmes.

For specific information on resistance management contact the registration holder of this product.

Some insects (e.g. *Phthorimaea operculella*, *Liriomyza huidobrensis*, *Chrysodeixis acuta*, *Helicoverpa armigera*, etc.) have been able to develop resistance to commercially available products. When resistance occurs, recommended rates fail to suppress the pest population below economic thresholds. The onset of resistance cannot be predicted and local advisors should be consulted for resistance management recommendations. As a result of its unique mode of action, **CORAGEN™** is ideally suited for applications where resistance management is important. Whilst there is no evidence of insect resistance to chlorantraniliprole, these guidelines will maximise the effective life of the product:

1. Where appropriate, alternate **CORAGEN™** with compounds from different chemical classes (oxadiazine e.g. **Steward® 150 EC**, pyrethroid, organophosphate, neonicotinoid, spinosyn, diacylhydrazine or other insect growth regulators). We recommend alternation with registered products from these classes and not to exceed the maximum number of **CORAGEN™** applications per season as per the instructions under **DIRECTIONS FOR USE** on this label.
2. Monitor insect populations and apply **CORAGEN™** according to the label instructions when locally determined economic thresholds are reached. It is recommended that two to three consecutive **CORAGEN™** applications are applied as a block spray. Follow these label recommendations precisely for the dosage rates, spray intervals and the optimum timing to apply **CORAGEN™**.
3. **CORAGEN™** helps conserve a large number of beneficial arthropods (parasitoids and predators). While these beneficial arthropods cannot be relied upon to control pests, they are of potential value and can be monitored along with pests in pest management programmes on these crops. According to the standards of Good Agricultural Practices, **CORAGEN™** should not be applied when honeybees are actively foraging.

GENERAL INFORMATION:

CORAGEN™ has a novel mode of action and acts by binding to and activating insect ryanodine receptors. This activation stimulates release and depletion of calcium from the internal stores of muscles, resulting in impaired muscle regulation, paralysis and ultimately insect death. Death of the pest occurs within 2-3 days, but inhibition of insect movement and feeding occurs rapidly.

CORAGEN™ is active as a larvicide through ingestion (stomach action) and through cuticular absorption (contact action).

CORAGEN™ controls mainly Lepidopteran insect pests, but also some insect pests in other Orders e.g. Coleoptera, Diptera etc. Applications of **CORAGEN™** have been shown to leave substantial populations of many beneficial insects (predators, parasitoids and pollinators) as well as predatory mites and can therefore be used effectively in Integrated Pest Management (IPM) programmes.

RAINFASTNESS: Once the spray mixture has dried on foliage and fruit (which can take up to 2 hours after application) on the target area, **CORAGEN™** will not be washed off by rainfall or sprinkler irrigation and the normal residual activity of the product should not be affected. Nevertheless repeated abnormal rainfall / overhead irrigation subsequent to application may reduce product effectiveness.

DIRECTIONS FOR USE:

USE ONLY AS DIRECTED

COMPATIBILITY:

The compatibility of **CORAGEN™** has not been fully investigated.

For more compatibility information, or in the event of uncertainty, contact your nearest **DuPont** representative.

It is recommended that users premix a small quantity of a desired tank mixture containing **CORAGEN™** and observe for possible adverse changes (settling out, flocculation, etc.). Avoid tank mixtures of several products.

TANK MIXING:

Spray equipment must be clean and free of previous pesticide deposits before applying **CORAGEN™**. Fill spray tank $\frac{1}{4}$ to $\frac{1}{2}$ full with clean water. Add the required amount of **CORAGEN™** directly into the tank and fill with water whilst stirring constantly.

MIXING SEQUENCE:

If **CORAGEN™** is tank mixed with other products, always first add water dispersible granule formulations, followed by wettable powders, followed by suspension concentrates (e.g. **CORAGEN™**) to the spray tank followed by other formulations (where applicable) in the following order:

- water soluble concentrates
- oil-based suspension concentrates
- emulsifiable concentrates
- adjuvants, surfactants and spray oils

Allow enough time for complete mixing and dispersion after addition of each product before the next product is added. Also refer to **COMPATIBILITY** statement above.

APPLICATION:

Apply **CORAGEN™** as a high volume full cover application with conventional spray equipment which is correctly calibrated to provide thorough coverage of the target crop and correct dosage rate per hectare. In tomatoes **CORAGEN™** can be applied either as high volume full cover application or reduced volume mistblower application in a minimum 500 litres spray mixture per hectare.

CROP/PEST	APPLICATION RATE	RECOMMENDATIONS/REMARKS
<p>CITRUS: False Codling Moth (larvae) <i>Thaumatotibia leucotreta</i> = <i>Cryptoplebia leucotreta</i></p>	<p>17.5ml/hl spray mixture</p>	<p>Apply CORAGEN™ as a full cover application at spray volumes varying between 2000 and a maximum of 8500 litres spray mixture per hectare, depending on the size of the trees and the growth stage of the crop. Proper coverage of fruit is essential for optimal control.</p> <p>Always apply CORAGEN™ as part of an integrated pest management program (IPM) in citrus. CORAGEN™ can not provide season long control of false codling moth on its own. For optimum results CORAGEN™ applications should therefore be combined with, or preceded by, other methods of false codling moth control (as per Important Note No 1 & 2 below).</p> <p>The efficacy of CORAGEN™ applications can be adversely influenced by high infestation level of the pest, big and dense trees, wrong application equipment, climatic conditions and application timing.</p> <p>For optimum timing of CORAGEN™ applications it is recommended to monitor male moth activities from the beginning of October throughout the growing season in the orchard (or a close by orchard in the case of a mating disrupted orchard).</p> <p>Apply CORAGEN™ as a preventive application, as soon as the false codling male catches starts increasing during the latter part of the growing season (from about 16 weeks before the intended harvest date). A second CORAGEN™ application is recommended at a spray interval of 6 to maximum 8 weeks later.</p> <p>When CORAGEN™ is used in orchards where the false codling moth activity is not monitored, the first preventive CORAGEN™ application should be made 14 to 12 weeks prior to the intended harvest date, followed by a second CORAGEN™ application 6 to maximum 8 weeks later.</p> <p>If only one preventive CORAGEN™ application is to be made for protection in the period close to harvest, apply CORAGEN™ 12 to 8 weeks prior to the intended harvest date of the crop.</p> <p>Do not exceed 2 CORAGEN™ applications per season in total and do not apply more than 3 litres of CORAGEN™ per hectare per season.</p> <p>Allow 7 days between last CORAGEN™ application and harvest.</p> <p><u>IMPOTANT NOTE RELATING TO PHI & MRL'S:</u> The withholding period or pre-harvest interval (PHI), i.e. number of days between last application and harvest, meets local maximum residue limits (MRL's), but may not necessarily meet all those for export crops. Before applying CORAGEN™ consult your local DuPont representative, as well as the latest "Recommended usage restrictions for plant protection Products on Southern African Export Citrus" compiled by Citrus Research International and the Citrus Growers Association of South Africa, which contains updated MRL and recommended PHI information on citrus intended for export.</p>
<p><u>IMPORTANT NOTES FOR THE CONTROL OF FALSE CODLING MOTH IN CITRUS:</u></p> <ol style="list-style-type: none"> 1. A false codling moth mating disruption, biological control program (e.g. Cryptogran™) or a sterile insect release (SIT) program are recommended in combination with CORAGEN™ applications for optimum control of the pest. 2. Always maintain good orchard sanitation throughout the growing season, which forms a critical part of effective control of false codling moth, regardless of the control method or combination of control methods are used to control the false codling moth. 		

