

Product Name: DUPONT CORAGEN INSECTICIDE  
APVMA Approval No: 61519/119647v



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| Label Name:             | CORAGEN INSECTICIDE   |
| Signal Headings:        |   |
| Constituent Statements: | 200 g/L CHLORANTRANILIPROLE   |
| Mode of Action:         | GROUP 28 INSECTICIDE  |
| Statement of Claims:    | For the control of Lepidopteran species of insect pests in certain vegetables and Strawberries, as per the Directions for Use   |
| Net Contents:           | 0.5L-10 L<br>1 L<br>250 mL  |
| Restrains:              | This section contains file attachment.  |
| Directions for Use:     | This section contains file attachment.  |
| Other Limitations:      |   |
| Withholding Periods:    | HARVEST<br>POTATOES: WITHHOLDING PERIOD NOT REQUIRED WHEN USED AS DIRECTED.<br>FRUITING VEGETABLES (CUCURBITS INCLUDING CUCUMBERS, MELONS, PUMPKIN, SQUASH, ZUCCHINI), LEGUME VEGETABLES, STRAWBERRIES: DO NOT HARVEST FOR 1 DAY AFTER APPLICATION. |

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|  | <p>BRASSICA LEAFY VEGETABLES, FRUITING VEGETABLES (excluding CUCURBITS), LEAFY VEGETABLES (including LETTUCE), STALK &amp; STEM VEGETABLES (CELERY AND RHUBARB): DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION.<br/> BRASSICA VEGETABLES (INCLUDING BROCCOLI, BRUSSELS SPROUT, CABBAGE, CAULIFLOWER), SWEET CORN: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.</p> <p>GRAZING<br/> LEGUME VEGETABLES: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 1 DAY AFTER APPLICATION.<br/> SWEET CORN: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.<br/> OTHER CROPS: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.</p> |
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| Trade Advice: | TRADE ADVICE EXPORT STATEMENT: Import tolerances for produce treated with Coragen insecticide may be pending in some countries. Consult with your exporter or FMC before applying Coragen insecticide to export crops. |
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| General Instructions: | This section contains file attachment. |
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| Resistance Warning: | <p>For insecticide resistance management Coragen insecticide is a Group 28 insecticide. Some naturally occurring insect biotypes resistant to Coragen insecticide and other Group 28 insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Coragen and other Group 28 insecticides are used repeatedly. The effectiveness of Coragen insecticide on resistant individuals could be significantly reduced. Since the occurrence of resistant individuals is difficult to detect prior to use FMC accepts no liability for any losses that may result from the failure of Coragen insecticide to control resistant insects.</p> <p>Coragen may be subject to specific resistance management strategies. For further information refer to the Insecticide Resistance Management (IRM) section of this label, contact your farm chemical supplier, consultant, local Department of Agriculture or Primary Industries, or local FMC Representative.</p> <p><b>INSECTICIDE RESISTANCE MANAGEMENT (IRM)</b></p> <p>Coragen insecticide contains chlorantraniliprole, a Group 28 Insecticide. Unless directed otherwise in the specific crop/insect sections of the label, the following practices are recommended to prevent or delay the development of insecticide resistance to Coragen insecticide and to Group 28 insecticides:</p> <ul style="list-style-type: none"> <li>• Apply Coragen insecticide or other Group 28 insecticides using a “window” approach to avoid exposure of consecutive insect pest generations to the same mode of action. Multiple successive applications of Coragen or other Group 28 insecticides are acceptable if they are used to treat a single insect generation.</li> <li>• Following a “window” of Coragen insecticide or other Group 28 insecticides, rotate to a “window” of applications of effective insecticides with a different mode of action.</li> <li>• The total exposure period of all “Group 28-active windows” applied throughout the crop cycle (from seedling to harvest) should not exceed 50% of the crop cycle.</li> <li>• Incorporate IPM techniques into the overall pest management program.</li> <li>• Monitor insect populations for loss of field efficacy.</li> </ul> <p>For additional information on insect resistance, modes of action and monitoring visit the Insecticide Resistance Action Committee (IRAC) on the web at <a href="http://www.irac-online.org">http://www.irac-online.org</a></p> |
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| Precautions: |  |
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| Protections: | PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT<br>Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers. |
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| Storage and Disposal: | Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight.<br>Triple pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product. |
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| Safety Directions: |  |
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| First Aid Instructions: | If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. |
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| First Aid Warnings: |  |
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**RESTRAINTS:**

**DO NOT** apply if rainfall is expected within 2 hours of application.

**DO NOT** allow effluent or run-off from protected cropping systems containing this product to enter dams, streams, ponds or other waterways.

**SPRAY DRIFT RESTRAINTS**

Specific definitions for terms used in this section of the label can be found at [www.apvma.gov.au/spraydrift](http://www.apvma.gov.au/spraydrift)

**DO NOT** allow bystanders to come into contact with the spray cloud.

**DO NOT** apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The buffer zones in the relevant buffer zone table/s below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

**DO NOT** apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.

**DO NOT** apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.

**DO NOT** apply by a boom sprayer unless the following requirements are met:

- spray droplets not smaller than a MEDIUM spray droplet size category
- minimum distances between the application site and downwind sensitive areas (see 'Mandatory no-spray zones' section) are observed.

**DO NOT** apply by aircraft unless the following requirements are met:

- spray droplets not smaller than a MEDIUM spray droplet size category
- for release heights 25% of wingspan or 25% of rotor diameter or lower above the target canopy, minimum distances between the application site and downwind sensitive areas (see 'Mandatory no-spray zones' section) are observed.

| <b>Table 1 – No-Spray Zones for Protection of the Aquatic Environment</b> |   |   |
|---|---|---|
| <b>FOR AERIAL APPLICATION</b>   |   |   |
| <b>Wind Speed Range at Time of Application</b>                            | <b>Downwind Mandatory No-Spray Zone</b> |   |
|   | <b>Fixed-Wing</b>                       | <b>Helicopter</b>                       |
| from 3 to 8 kilometres per hour   | 200 metres                              | 200 metres                              |
| from 8 to 14 kilometres per hour  |   |   |
| from 14 to 20 kilometres per hour   |   |   |
| <b>FOR GROUND APPLICATION</b>   |   |   |
| <b>Usage</b>  | <b>Applications per season</b>          | <b>Downwind Mandatory No-Spray Zone</b> |
| Strawberries and Vegetables   | 3                                       | 15 metres                               |

**For use in all States where appropriate for the crop and/or insect pest.**

| CROP  | PEST   | RATE/HA  | WHP    | CRITICAL COMMENTS |
|---|--|--|--------|-------------------|
| <p><b>CRITICAL COMMENTS - ALL CROPS</b></p> <p>Regularly scout crops to monitor for eggs and larvae. Target sprays against eggs and newly hatched larvae before they become entrenched. Apply as egg and larvae reach threshold numbers.</p> <p>A maximum of three (3) applications are to be applied to any one crop. No more than two (2) consecutive sprays per crop, with a minimum spray interval of 7 days (unless stated otherwise). Further treatments should be made with alternative mode of action insecticides.</p> <p>Use enough water to ensure thorough coverage of the crop. Adjust water volumes to crop stage (200 – 1000 L/ha).</p> <p>For dilute spraying- Apply sufficient water to cover the crop to the point of run-off but avoid excessive run-off. The required dilute spray volume will change as the crop grows therefore sprayer set up needs to be adjusted accordingly.</p> <p>Refer to Surfactant/Wetting agent section.</p> <p>Use in accordance with AIRAC Insecticide Resistance Management Strategy guidelines. As part of an Insecticide Resistance Management programme for Cotton bollworm, it is important to plough crops immediately after harvest.</p> |  |  |        |                   |
| <p><b>Brassica vegetables including:</b><br/>Broccoli<br/>Brussels sprout<br/>Cabbage<br/>Cauliflower</p>   | <p>Cabbage-centre grub (<i>Hellula hydralis</i>)<br/>Cabbage cluster caterpillar (<i>Crociodolomia pavonana</i>)</p>   | <p>100 mL<br/>+<br/>15 gai/100 L of non-ionic surfactant<br/>or</p>        | 7 days |                   |
| <p><b>Brassica leafy vegetables including:</b><br/>Buk choy<br/>Chinese broccoli (Gai lum/Gai lan/Kai lan),<br/>Chinese cabbage (Pet sai/Wombok /Haksukai)<br/>Choy sum<br/>Gai choy/Am soy<br/>Kai choy<br/>Kale<br/>Mibuna<br/>Leafy mustard including<br/>Indian mustard and<br/>Mustard spinach (Komatsuma)<br/>Pak choy<br/>Tat soy<br/>(for field and protected cropping systems)</p>   | <p>Cabbage leafminer (<i>Liriomyza brassicae</i>)<br/>Cabbage white butterfly (<i>Pieris rapae</i>)<br/>Cluster caterpillar (<i>Spodoptera litura</i>)<br/>Cotton bollworm (<i>Helicoverpa armigera</i>)<br/>Diamondback moth (<i>Plutella xylostella</i>)<br/>Native budworm (<i>Helicoverpa punctigera</i>)<br/>Soybean looper (<i>Thysanoplusia orichalcea</i>)</p> | <p>10 mL/100 L (dilute)<br/>+<br/>15 gai/100 L of non-ionic surfactant</p> | 3 days |                   |
| <p><b>Stalk &amp; Stem vegetables:</b><br/>Celery and<br/>Rhubarb</p>   | <p>Cotton bollworm (<i>Helicoverpa armigera</i>)<br/>Native budworm (<i>Helicoverpa punctigera</i>)</p>  | <p>100 mL<br/>+<br/>15 gai/100 L of non-ionic surfactant<br/>or</p>        |        |                   |
| <p><b>Leafy vegetables (excluding lettuce), including:</b><br/>Cress<br/>Endive<br/>Silverbeet<br/>Spinach<br/>(for field and protected cropping systems)</p>   |  | <p>10 mL/100 L (dilute)<br/>+<br/>15 gai/100 L of non-ionic surfactant</p> |        |                   |

| CROP   | PEST  | RATE/HA  | WHP          | CRITICAL COMMENTS   |
|--|---|--|--------------|---|
| Lettuce<br>(leaf and closed head varieties)<br>(for field and protected cropping systems)  | Cotton bollworm<br>( <i>Helicoverpa armigera</i> )<br>Native budworm<br>( <i>Helicoverpa punctigera</i> )   | 150 mL<br>+<br>15 gai/100 L of non-ionic surfactant<br>or<br>15 mL/100 L (dilute)<br>+<br>15 gai/100 L of non-ionic surfactant | 3 days       |   |
| <b>Fruiting vegetables (excluding Cucurbits), including:</b><br>Capsicum<br>Egg plant<br>Peppers<br>Tomato (trellis and field)<br>(for field and protected cropping systems) | Cotton bollworm<br>( <i>Helicoverpa armigera</i> )<br>Native budworm<br>( <i>Helicoverpa punctigera</i> )<br>Tomato leaf miner<br>( <i>Phthorimaea operculella</i> )<br>Eggfruit caterpillar<br>( <i>Sceliodes cordalis</i> ) | 100 mL<br>or<br>10 mL/100 L (dilute)   | 3 days       | Ensure spray timing coincides with egg laying/hatching. The pest hatches from the egg and burrows directly into fruit. Larvae entrenched in the fruit at the time of spraying will not be controlled. |
| <b>Fruiting vegetables (Cucurbits), including:</b><br>Cucumbers<br>Melons<br>Pumpkin<br>Squash<br>Zucchini<br>(for field and protected cropping systems)                     | Cotton bollworm<br>( <i>Helicoverpa armigera</i> )<br>Native budworm<br>( <i>Helicoverpa punctigera</i> )<br>Cucumber moth<br>( <i>Diaphania indica</i> )   | 100 mL<br>+<br>15 gai/100 L of non-ionic surfactant<br>or<br>10 mL/100 L (dilute)<br>+<br>15 gai/100 L of non-ionic surfactant | 1 day        | Apply with a minimum spray interval of 5 days.  |
| <b>Legume vegetables including:</b><br>Green beans<br>Green peas<br>Processing peas<br>Snow peas<br>Sugar snap peas<br>(for field and protected cropping systems)            | Cotton bollworm<br>( <i>Helicoverpa armigera</i> )<br>Native budworm<br>( <i>Helicoverpa punctigera</i> )   | 100 mL<br>+<br>15 gai/100 L of non-ionic surfactant<br>or<br>10 mL/100 L (dilute)<br>+<br>15 gai/100 L of non-ionic surfactant | 1 day        |   |
| Potatoes   | Cotton bollworm<br>( <i>Helicoverpa armigera</i> )<br>Native budworm<br>( <i>Helicoverpa punctigera</i> )<br>Potato moth<br>( <i>Phthorimaea operculella</i> )  | 100 mL   | Not required | Only target foliar infestations of Potato moth. Moth larvae in the soil or within stems will not be controlled. Apply with a spray interval of 10 - 14 days.  |

Product Name: Coragen® insecticide

Label component: Directions for use

| CROP   | PEST   | RATE/HA  | WHP    | CRITICAL COMMENTS   |
|--|--|--|--------|---|
| Strawberries<br>(for field and protected cropping systems) | Cluster caterpillar<br>( <i>Spodoptera litura</i> )<br>Cotton bollworm<br>( <i>Helicoverpa armigera</i> )<br>Native budworm<br>( <i>Helicoverpa punctigera</i> ) | 100 mL<br>+<br>15 gai/100 L of non-ionic surfactant<br>or<br>10 mL/100 L (dilute)<br>+<br>15 gai/100 L of non-ionic surfactant | 1 day  |   |
| Sweet corn   | Cotton bollworm<br>( <i>Helicoverpa armigera</i> )   | 100 mL<br>+<br>15 gai/100 L of non-ionic surfactant  | 7 days | Ensure spray timing coincides with egg laying/hatching. Larvae entrenched in cobs at the time of spraying will not be controlled. |

**NOT TO BE USED FOR ANY PURPOSE OR IN ANY MANNER CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION**

## GENERAL INSTRUCTIONS

Coragen<sup>®</sup> insecticide has been specifically designed for use in Integrated Pest Management (IPM) schemes. Coragen<sup>®</sup> is an anthranilic diamide insecticide in the form of a suspension concentrate. Coragen<sup>®</sup> is particularly active on Lepidopteran insect pests, primarily as a larvicide. Before application monitor insect populations to determine whether or not there is a need for application of Coragen<sup>®</sup> insecticide based on locally determined economic thresholds. More than one treatment of Coragen<sup>®</sup> insecticide may be required to control a population of pests.

## MIXING

Fill spray tank to  $\frac{1}{4}$  to  $\frac{1}{2}$  full of water. Measure the amount of Coragen<sup>®</sup> insecticide required for the area to be sprayed. Add Coragen<sup>®</sup> insecticide directly to the spray tank with the agitation engaged. Mix thoroughly to disperse the insecticide. Once dispersed, the material must be kept in suspension at all times by continuous agitation. Use mechanical or hydraulic means, **DO NOT** use air agitation, premix or slurry.

If spray solution is left standing, ensure thorough re-agitation of the spray mix until fully resuspended. **DO NOT** allow spray mix to sit overnight, as resuspension may be difficult.

## SURFACTANT/WETTING AGENT

For Brassica vegetable, Brassica leafy vegetable, Stalk & Stem vegetables, Strawberries, Leafy vegetables, Lettuce, Fruiting vegetables (Cucurbits), Legume vegetables, Sweet corn use a non-ionic surfactant/wetting agent at 15 g active/100 L, (e.g. Agral\* 600 @ 25 mL/100 L).

**DO NOT** use BS1000\* or Activator\* as it may cause crop phytotoxicity.

**DO NOT** add a non-ionic surfactant/wetting agent if:

- mixing with another product which already contains a surfactant and/or the product label advises not to add a surfactant.
- mixing with a liquid fertiliser.

## APPLICATION

Application equipment should be calibrated to apply at least sixty (60) droplets per cm<sup>2</sup> of target foliage. Droplet VMD should be of medium spray quality according to ASAE S572 definition for standard nozzles.

### Ground application

Use a boom sprayer fitted with high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size, DOES NOT improve canopy penetration and may increase drift potential. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE. Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. When applying Coragen<sup>®</sup> by ground application, keep the boom low to avoid spray drift.

### Aerial application (by fixed wing aircraft or helicopter)

Coragen<sup>®</sup> must only be applied with aircraft fitted with accurately calibrated equipment. Apply a minimum total spray volume of 40 L/ha with nozzles (e.g. Micronaire rotary atomisers, CP nozzles or conventional hydraulic nozzles) set to medium spray quality according to ASAE S572 definition for standard nozzles. A spray drift minimisation strategy should be employed at all times when applying this product.

**DO NOT** apply Coragen<sup>®</sup> using Ultra Low Volume (ULV) methods.

## COMPATIBILITY

Since formulations may be changed and new ones introduced, it is recommended that users premix a small quantity of the desired tank mix and observe possible adverse changes (settling out, flocculation etc). Avoid complex tank mixtures of several products or very concentrated spray mixtures. Coragen<sup>®</sup> is compatible with Captan\*, Dextrolac\*, Delan\*, Fulasin\*, mancozeb, Omite\*, Polyram\* and Systhane\*.

**The mixing sequence recommended is:** water soluble bags, dry flowable or water dispersible granules, wettable powders, water based suspension concentrates (Coragen<sup>®</sup> insecticide), water soluble concentrates, oil based suspension concentrates, emulsifiable concentrates, adjuvants and surfactants, soluble fertilisers.



**SPRAY EQUIPMENT CLEANOUT**

Prior to application, start with clean, well-maintained application equipment. Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove. Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom, and nozzles with clean water.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. **DO NOT** clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.