



An Agricultural
Sciences Company

Coragen[®]

Insect control

powered by
RYNAXYPYR[®]
active ingredient

**GET MORE THAN JUST PROTECTION
FOR YOUR SUGARCANE**

**USE PLANT PROTECTION PRODUCTS SAFELY AND WITH RESPONSIBLE CARE.
PLEASE ALWAYS FOLLOW THE LABEL WHEN APPLYING PLANT PROTECTION PRODUCTS.**



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CORAGEN® INSECT CONTROL AT A GLANCE

Registration No.	L8529 Act No. 36 of 1947
Active ingredients	Rynaxypyr® active ingredient* 200 g/l
Chemical class	IRAC group 28 - Anthranilic diamide
Crops	Avocados, Barley, Canola, Citrus, Cotton, Eggplant, Grapes (table), Hops, Litchis, Maize & Sweetcorn, Oats, Pomegranates, Potatoes, Sorghum, Stone fruit, Sugarcane, Tomatoes, Tree Nuts, Wheat
Target pests	Sugarcane borer (<i>Eldana saccharina</i>) larvae Fall armyworm (<i>Spodoptera frugiperda</i>) larvae
Use rate by application	200 ml/ha
Number of treatments	Maximum 2 applications per season
Packaging	1l bottle

* Rynaxypyr® active ingredient is the trademark of chlorantraniliprole.

MODE OF ACTION (MOA)

Rynaxypyr® active ingredient, the active ingredient in Coragen® insect control, is the only member of the anthranilic diamides chemical class registered for pest control in corn.

Rynaxypyr® active ingredient targets the insect's ryanodine receptors and activates an uncontrolled release of calcium from internal stores into the cytoplasm of muscle fibres. This unique MoA differs from all other currently available corn insecticides and makes Coragen® insect control an excellent partner in Insect Resistance Management (IRM) programmes.

The unique MoA makes Coragen® insect control highly effective against the main Lepidoptera pests in corn.

Target sites of currently available insecticidal classes

Chitin Skin

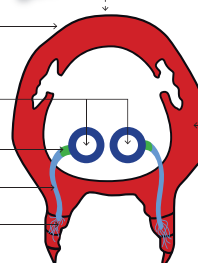
Diacylhydrazines
Azadirachtin
Benzoylureas

Excitatory Neurons

Pyrethroids
Indoxacarb
Carbamates
Organophosphates

Motor Neurons

Neonicotinoids
Naturalytes
Cyclodienes
Fipronil



Target sites of Coragen® insect control

Muscle Fibers

Rynaxypyr® active ingredient

Insecticidal classes according to the Insecticide Resistance Action Committee (IRAC), a specialist technical group of the industry association, CropLife. This association provides a coordinated industry response to prevent or delay the development of resistance in insect and mite pests.

QUICK FEEDING CESSATION

Rynaxypyr® active ingredient stops larval feeding very quickly and is superior to most competitors in this respect. This effect is due to impaired muscular movement of the insect almost instantly after exposure. The very rapid feeding cessation provides nearly immediate plant protection.

Although unable to feed further, some larvae may not die until a few days after treatment. Affected larvae, that are either moribund and not feeding or dead, may temporarily adhere to the leaf from dried insect regurgitation that may occur after exposure to this mode of action.

OUTSTANDING EFFICACY

Coragen® insect control is the supreme choice to protect sugarcane against *Eldana saccharina* larvae. The foliar applied broad spectrum insecticide provides high efficacy and long lasting protection. Because of its unique, innovative mode of action, Coragen® insect control is equally effective against difficult to control insect pest populations.

In comparison with other currently available insecticides, Coragen® insect control has a higher biological activity. Coragen® insect control works quickly and is highly effective at low use rates. It has a wide spectrum of activity against a number of the principal chewing insects attacking crops.

The formulation shows exemplary safety for an array of crops under a variety of environmental conditions. Coragen® insect control displays excellent mixing and handling characteristics, as well as compatibility with all insecticides and fungicides tested to date. While highly potent to target species, Coragen® insect control has minimal impact on beneficial insects and therefore is outstandingly suitable for Integrated Pest Management programmes, when used as directed. The very low mammalian toxicity of the product allows immediate re-entry after spray solution has dried and has minimal impact on field operations.

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HIGHLY EFFECTIVE MODE OF ACTION

Coragen® insect control is active against various growth stages in the insect's lifecycle such as:

- Eggs (true ovicidal effect).
- Larvae during, or just after hatching (ovi-larvicidal).
- Larvae through contact with spray deposits when moving over treated plant parts.
- Larvae by ingestion during first feeding attempts.
- Adult moths (reduction in egg laying).

All these components normally overlap and contributes to the strong and sound efficacy of Coragen® insect control.

STRONG AND SOUND

Highly effective – also against difficult to control pest populations.

- Rapidly stops feeding damage.
- Long-lasting protection of crop and yield.
- Broad spectrum activity on chewing insects.
- Good efficacy under difficult conditions, e.g. heavy rain or high temperature.
- High crop safety.
- Excellent fit into Integrated Pest Management (IPM) and Insecticide Resistance Management (IRM) when used as directed.
- High operator safety.
- Negligible effects upon beneficial arthropods.

Better protection, unique application flexibility, great crop quality – now that's smart sugarcane farming.



Coragen®
Insect control

RESISTANCE MANAGEMENT

According to the IRAC International mode of action classification scheme (www.irac-online.org), Coragen® insect control component belongs to

GROUP	28	INSECTICIDE
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For sustainable use of Coragen® insect control, a good resistance management is essential. The following guidelines need to be considered:

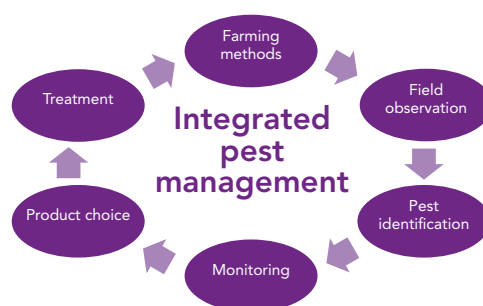
GOOD AGRICULTURAL PRACTICE

Follow the label instructions and carefully check the number of applications registered for a product in a crop per year.

Don't reduce rates, follow the recommended application timing and spray volume.

INTEGRATED PEST MANAGEMENT

1. Farming methods to limit weed damage
2. Tracking in the field or any other detection method
3. Pest identification
4. Population monitoring
5. Alternating insecticides with different modes of action



SAFE USE

Safety is a priority at FMC, and we encourage farmers and other workers to use our products with care. We recommend that they:

- Reduce potential user exposure through improved application techniques;
- Reduce dermal and inhalation exposures by the proper use of appropriate Personal Protective Equipment (PPE);
- Reduce any environmental impact with effective container rinsing, correct disposal and avoidance of surpluses.

GOOD PLANT PROTECTION PRACTICE 10 RESPONSIBLE AND PROFESSIONAL ACTIONS

BEFORE APPLICATION

- 1  Store products in a suitable and locked store.
- 2  Read all safety precautions and directions for use before use.
- 3  Protect yourself properly (protective gloves, glasses, mask, coveralls, boots).
- 4  Regularly check all equipment and keep it well-maintained and calibrated.
- 5  Check the filling of the spray tank and adjust the spray volume (check valves, avoid overfilling). Do not mix a volume of spray solution greater than is required for immediate use.
- 6  Triple-rinse the pesticide container, and add the rinsate to the spray tank, or use an induction bowl.

DURING APPLICATION

- 7  Do not apply to watercourses or ditches. Apply to the crop in calm weather conditions, with no more than a light breeze, to avoid spray drift to ditches, watercourses, roads, neighboring farms or buildings.

AFTER APPLICATION

- 8  Dilute unavoidable residue in the spray tank with water and spray onto a treated area.
- 9  Clean re-usable personal protective equipment. Wash your hands. Take a shower.
- 10  Dispose of empty containers in accordance with the official local regulations. Recycle where possible.

For more information please contact:

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Coragen® contains chlorantraniliprole (anthranilic diamide) (Rynaxypyr®) Reg. No. L8529 Act No. 36 of 1947, caution. Coragen® and Rynaxypyr® are trademarks of FMC Corporation or an affiliate. Date: 08/2020.