



An Agricultural
Sciences Company

Coragen[®]

Insect control

powered by
RYNAXYPYR[®]
active ingredient

GET MORE THAN JUST PROTECTION FOR YOUR CROP

Coragen[®] helps to deliver superior pest control resulting in consistently high yields, improved grain and silage quality and excellent IPM compatibility.

**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

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. **CORAGEN®** has good rainfastness when exposed to rainfall or sprinkler irrigation and the expected residual activity of the product should not be adversely affected.

REGISTRATION NUMBER	L8529 Act No. 36 of 1947
ACTIVE INGREDIENTS	Rynaxypyr® - chlorantraniliprole (anthranilic diamide) 200 g/ℓ
IRAC	28
FORMULATION	A suspension concentrate stomach and contact insecticide for the control of various insect pests on a variety of crops as listed.
WITHHOLDING PERIODS	Maize & Sweetcorn – 7 days, Sorghum & Soybeans – 21 days
PACKAGING	10 x 1 ℓ; 20 x 200 mℓ

MAIZE & SWEETCORN

PEST	APPLICATION RATE	RECOMMENDATIONS/REMARKS
African bollworm (larvae) <i>(Helicoverpa armigera)</i> Maize stalk borers (larvae) <i>(Busseola fusca, Chilo partellus)</i> Fall Armyworm (larvae) <i>(Spodoptera frugiperda)</i>	FOLIAR APPLICATION (GROUND) 150 mℓ/ha	Apply CORAGEN® in a volume of 450 ℓ water per hectare. FOR FALL ARMYWORM: Apply at the beginning of infestation, at the first signs of damage, when no more than 5% of the plants have symptoms of scraped leaves. Application is NOT recommended for control of worms (larvae) larger than 1 cm. FOR AFRICAN BOLLWORM & MAIZE STALK BORERS: For best plant protection, apply during the egg-laying until the very first eggs are hatching, but no later than when 5% of the plants show shot hole damage. Apply over the funnel of the plants and ensure thorough coverage of the foliage. Apply at a 14 day interval. Do not exceed 2 applications per season in total of CORAGEN® . The alternation of CORAGEN® with products having a different mode of action (e.g. STEWARD® 150 EC) is recommended. The addition of a suitable adjuvant, such as H&R Crop oil at the registered rates, may enhance efficacy. Allow 7 days between last CORAGEN® application and harvest.

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	1.5 ml/100 m plant row	<p>Apply CORAGEN® in 3 ℓ water per 100 m plant row.</p> <p>FOR FALL ARMYWORM: Apply at the beginning of infestation, at the first signs of damage, when no more than 5% of the plants have symptoms of scraped leaves. Application is NOT recommended for control of worms (larvae) larger than 1 cm.</p> <p>FOR AFRICAN BOLLWORM & MAIZE STALK BORERS: For best plant protection, apply during the egg-laying until the very first eggs are hatching, but no later than when 5% of the plants show shot hole damage. Apply over the funnel of the plants and ensure thorough coverage of the foliage.</p> <p>Repeat after 14 days if re-infestation occurs.</p> <p>Do not exceed 2 applications per season in total of CORAGEN®. The alternation of CORAGEN® with products having a different mode of action (e.g. STEWARD® 150 EC) is recommended.</p> <p>The addition of a suitable adjuvant, such as H&R Crop oil at the registered rates, may enhance efficacy.</p> <p>Allow 7 days between last CORAGEN® application and harvest.</p>
FOLIAR APPLICATION (AERIAL)		
	150 ml/ha	<p>Apply CORAGEN® in a minimum volume of 30 ℓ water per hectare.</p> <p>FOR FALL ARMYWORM: Apply at the beginning of infestation, at the first signs of damage, when no more than 5% of the plants have symptoms of scraped leaves. Application is NOT recommended for control of worms (larvae) larger than 1 cm.</p> <p>FOR AFRICAN BOLLWORM & MAIZE STALK BORERS: For best plant protection, apply during the egg-laying until the very first eggs are hatching, but no later than when 5% of the plants show shot hole damage. Apply over the funnel of the plants and ensure thorough coverage of the foliage.</p> <p>Apply at a 14 day interval.</p> <p>Do not exceed 2 applications per season in total of CORAGEN®. The alternation of CORAGEN® with products having a different mode of action (e.g. STEWARD® 150 EC) is recommended.</p> <p>The addition of a suitable adjuvant, such as H&R Crop oil at the registered rates, may enhance efficacy.</p> <p>Allow 7 days between last CORAGEN® application and harvest.</p>

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African bollworm (larvae) <i>(Helicoverpa armigera)</i> Maize stalk borers (larvae) <i>(Busseola fusca, Chilo partellus)</i> Fall Armyworm (larvae) <i>(Spodoptera frugiperda)</i>	CENTER PIVOT	
	150 ml/ha	<p>FOR FALL ARMYWORM: Apply at the beginning of infestation, at the first signs of damage, when no more than 5% of the plants have symptoms of scraped leaves. Application is NOT recommended for control of worms (larvae) larger than 1 cm.</p> <p>FOR AFRICAN BOLLWORM & MAIZE STALK BORERS: For best plant protection, apply during the egg-laying until the very first eggs are hatching, but no later than when 5% of the plants show shot hole damage. Apply over the funnel of the plants and ensure thorough coverage of the foliage.</p> <p>Ensure that the pivot irrigation system complies with the following specifications before application starts:</p> <p>The distribution coefficient of the pivot irrigation system must be >90%, and the pivot should not apply more than 5 mm (50 000 l) per hectare at maximum speed.</p> <p>Clean all the sieves of the pivot irrigation system before starting application. Calibrate the injection pump of the pivot irrigation system according to the time it takes for the pivot irrigation system to complete one full circle.</p> <p>Set the pivot irrigation system to maximum speed so that as little water as possible (not more than 5 mm) is applied per hectare.</p> <p>Mix the CORAGEN® with water in the application tank. Stir the spray mixture continuously before and during application.</p> <p>Inject the CORAGEN® spray mixture into the main application line of the pivot irrigation system as soon as the irrigation system reaches maximum speed. Mark the position on the land when the spray mixture reaches the furthest end of the pivot irrigation system.</p> <p>Allow the pivot irrigation system to complete one full circle from the aforementioned point.</p> <p>Apply at a 14 day interval.</p> <p>Do not exceed 2 applications per season in total of CORAGEN®. The alternation of CORAGEN® with products having a different mode of action (e.g. STEWARD® 150 EC) is recommended.</p> <p>When CORAGEN® is applied through a center pivot irrigation system the addition of an adjuvant is not necessary. However, if an adjuvant is added, use a mineral oil type like H&R Crop Oil at registered application rates and follow the recommended tank mix sequence.</p> <p>Allow 7 days between last CORAGEN® application and harvest.</p>

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MAIZE & SWEETCORN

IMPORTANT NOTES APPLICABLE TO STALK BORER, STEM BORER, AFRICAN BOLLWORM AND FALL ARMYWORM CONTROL WITH CORAGEN® IN MAIZE

NB: Do not apply **CORAGEN®** on maize that are under drought stress.
 To ensure optimum results, application must take place early in the morning when dew is present.
 Larvae that have already tunnelled into the funnels will not be controlled by **CORAGEN®**.
 Do not exceed 2 applications per season with **CORAGEN®**.
 Two applications can be made consecutively after which other mode of action insecticide must be used.

STALK BORER (larvae)
(Busseola fusca)

Commercial maize:

Apply during the egg-laying until the very first eggs are hatching, but no later than when 5% of the plants show shot hole damage symptoms in the maize funnels, which are caused by small feeding larvae.

Sweetcorn:

Apply when egg laying starts, or with the first signs of shot hole damage symptoms on the maize funnels.

NB: Application must be done before larvae migrate to the stems of the maize plants and when larvae are smaller than the 2nd larval instar. Do not apply **CORAGEN®** on maize against stalk borer while the tassel is encircled by the flag leaf.

SORGHUM STEM BORER (larvae)
(Chilo partellus)

Commercial maize:

Apply when eggs are found on 2,5% of the plants, or when 5% of the plants are showing shot hole damage symptoms on the maize funnels, which are caused by small feeding larvae.

Sweetcorn:

Apply when egg laying starts or with the first signs of shot hole damage symptoms on the maize funnels.

NB: Application must be done before larvae migrate to the stems of the maize plants and when larvae are smaller than the 2nd larval instar. Do not apply **CORAGEN®** on maize against stalk borer whilst the tassel is encircled by the flag leaf.

AFRICAN BOLLWORM (larvae)
(Helicoverpa armigera)

Funnel infestation:

Apply as for stalk borer (see notes above).

Cob infestation:

Apply when first larvae are observed on the beard (silk) during cob formation. Larvae that are already deep within the beard or have migrated into the cobs will not be controlled.

FALL ARMYWORM (larvae)
(Spodoptera frugiperda)

Apply at the beginning of infestation and at the first signs of damage, when no more than 5% of the plants have symptoms of scraped leaves.

Application is NOT recommended for control of worms (larvae) larger than 1 cm.

NB: Application must be done before larvae migrate into the cobs of the maize plants. Larvae that are already deep within the beard or have migrated into the cobs will not be controlled.



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SORGHUM

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Maize stalk borers (larvae) <i>(Busseola fusca, Chilo partellus)</i> Fall Armyworm (larvae) <i>(Spodoptera frugiperda)</i>	FOLIAR APPLICATION (GROUND)	
	150 mℓ/ha	Apply CORAGEN® in a volume of 250 - 400 ℓ water per hectare. FOR FALL ARMYWORM: Apply at the beginning of infestation, at the first signs of damage, when no more than 5% of the plants have symptoms of scraped leaves. Application is NOT recommended for control of worms (larvae) larger than 1 cm. FOR AFRICAN BOLLWORM & MAIZE STALK BORERS: For best plant protection, apply during the egg-laying until the very first eggs are hatching, but no later than when 5% of the plants show shot hole damage. Ensure thorough coverage of the foliage. Apply at a 7 day interval. Do not exceed 2 applications per season in total of CORAGEN® . The alternation of CORAGEN® with products having a different mode of action (e.g. STEWARD® 150 EC) is recommended. The addition of a suitable registered adjuvant at the registered rate, may enhance efficacy. Allow 21 days between last CORAGEN® application and harvest.
	FOLIAR APPLICATION (AERIAL)	
	150 mℓ/ha	Apply CORAGEN® in a minimum volume of 30 ℓ water per hectare. FOR FALL ARMYWORM: Apply at the beginning of infestation, at the first signs of damage, when no more than 5% of the plants have symptoms of scraped leaves. Application is NOT recommended for control of worms (larvae) larger than 1 cm. FOR AFRICAN BOLLWORM & MAIZE STALK BORERS: For best plant protection, apply during the egg-laying until the very first eggs are hatching, but no later than when 5% of the plants show shot hole damage. Ensure thorough coverage of the foliage. Apply at a 7 day interval. Do not exceed 2 applications per season in total of CORAGEN® . The alternation of CORAGEN® with products having a different mode of action (e.g. STEWARD® 150 EC) is recommended. The addition of a suitable registered adjuvant at the registered rate, may enhance efficacy. Allow 21 days between last CORAGEN® application and harvest.

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SORGHUM

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<p>Maize stalk borers (larvae) <i>(Busseola fusca, Chilo partellus)</i></p> <p>Fall Armyworm (larvae) <i>(Spodoptera frugiperda)</i></p>	<p>CENTER PIVOT</p> <p>150 mL/ha</p>	<p>FOR FALL ARMYWORM: Apply at the beginning of infestation, at the first signs of damage, when no more than 5 % of the plants have symptoms of scraped leaves. Application is NOT recommended for control of worms (larvae) larger than 1 cm.</p> <p>FOR AFRICAN BOLLWORM & MAIZE STALK BORERS: For best plant protection, apply during the egg-laying until the very first eggs are hatching, but no later than when 5% of the plants show shot hole damage. Ensure thorough coverage of the foliage.</p> <p>Ensure that the pivot irrigation system complies with the following specifications before application starts:</p> <p>The distribution coefficient of the pivot irrigation system must be >90%, and the pivot should not apply more than 5 mm (50 000 l) per hectare at maximum speed.</p> <p>Clean all the sieves of the pivot irrigation system before starting application. Calibrate the injection pump of the pivot irrigation system according to the time it takes for the pivot irrigation system to complete one full circle.</p> <p>Set the pivot irrigation system to maximum speed so that as little water as possible (not more than 5 mm) is applied per hectare.</p> <p>Mix the CORAGEN® with water in the application tank. Stir the spray mixture continuously before and during application.</p> <p>Inject the CORAGEN® spray mixture into the main application line of the pivot irrigation system as soon as the irrigation system reaches maximum speed. Mark the position on the land when the spray mixture reaches the furthest end of the pivot irrigation system.</p> <p>Allow the pivot irrigation system to complete one full circle from the aforementioned point.</p> <p>Apply at a 7 day interval.</p> <p>Do not exceed 2 applications per season in total of CORAGEN®. The alternation of CORAGEN® with products having a different mode of action (e.g. STEWARD® 150 EC) is recommended.</p> <p>When CORAGEN® is applied through a center pivot irrigation system the addition of an adjuvant is not necessary. However, if an adjuvant is added, use a mineral oil type like H&R Crop Oil at registered application rates and follow the recommended tank mix sequence.</p> <p>Allow 21 days between last CORAGEN® application and harvest.</p>

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SOYBEANS

PEST	APPLICATION RATE	RECOMMENDATIONS/REMARKS
African bollworm (larvae) <i>(Helicoverpa armigera)</i> Semi-(Plusia) looper <i>(Chrysodeixis acuta)</i>	FOLIAR APPLICATION (GROUND)	
	150 ml/ha	<p>Apply in 300 – 700 l water per hectare in soybeans. Ensure thorough, even coverage of the foliage.</p> <p>Apply CORAGEN® at flowering or when the first bollworm eggs or small larvae are observed following regular scouting during flowering and pod-set stages.</p> <p>A follow-up application 7 days later will normally be necessary if the first application is made at the early flowering stage or under conditions of continuous re-infestation.</p> <p>Larvae that have penetrated the pods or are obscured by dense foliage during application may not be adequately controlled. It is therefore essential to ensure thorough coverage of the foliage.</p> <p>The <i>Spodoptera</i> leaf worm (<i>Spodoptera littoralis</i>) should also be controlled in soybeans if present during application.</p> <p>Do not exceed 2 applications per season in total of CORAGEN®. The alternation of CORAGEN® with products having a different mode of action (e.g. STEWARD® 150 EC) is recommended.</p> <p>The addition of a suitable registered adjuvant at the registered rate, may enhance efficacy.</p> <p>Allow 21 days between last CORAGEN® application and harvest.</p>



For more information please contact:

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CORAGEN® contains chlorantraniliprole (anthranilic diamide) (Rynaxypyr®) Reg. No. L8529 Act No. 36 of 1947, caution. STEWARD® 150 EC (Reg. No. L8435, Act No. 36 of 1947) are the registered products of FMC Chemicals (Pty) Ltd. Date: 06/2021. H & R Crop Oil (SOUTH AFRICA Reg. No. L6802, Act 36 of 1947) is the registered product of H & R South African Sales (Pty) Ltd.