A GREAT FIT WITH IPM (INTEGRATED PEST MANAGEMENT)

Its resistance management properties, selectivity to beneficial insects and pollinators[1], robust pest control and unique environmental profile makes Coragen® a strong tool for Integrated Pest Management programs, where a combination of chemical and biological control techniques are preferred.

As a one-of-a-kind active with a different mode of action – Group 28 , Anthranilic diamide – Coragen® delivers effective resistance management. It also controls insect populations that have developed resistance to other insecticides.

Results of extensive multi-year laboratory and field studies show that the active Rynaxypyr® has negligible impact on key parasitoids, predators and pollinators at field use rates.

Coragen® works exceptionally well even at very low use rates. It has been developed and optimized for excellent crop protection and improved handling properties (ease of mixing, re-suspension and tank clean-out). This formulation has proven to be chemically stable in the spray tank over a wide range of conditions and temperatures (4-40^{O}C), pH (5-7-9) and time (up to 72 hours).

Its unique environmental and toxicological profile, as well as recommended low use rates, make Coragen® a sound choice for growers and applicators. This unique profile results in short Re-Entry Intervals (REIs) and Pre-Harvest Intervals (PHIs). The rate of degradation of Rynaxypyr® in the environment varies depending on soil and water conditions. High temperature, alkaline pH and ultraviolet light enhance degradation, producing non-toxic degradation products. The way Rynaxypyr® is bound in the soil matrix, its low water solubility and its non-volatility indicate low potential for movement toward surface or ground water.

Questions?
You can count on DuPont for answers. Contact the DuPont™ FarmCare® Support Centre at 1-800-667-3925 and speak directly with a knowledgeable team member or visit coragen.dupont.ca

[1]In line with Integrated Pest Management and Good Agricultural Practices, insecticide applications should be made when pollinators are not foraging to avoid unnecessary exposure.

As with all crop protection products, read and follow label instructions carefully. All information effective July 7, 2015.
Member of CropLife Canada.

The miracles of science™

CANOLA IS YOUR BUSINESS. FAMILY IS YOUR LIFE. CORAGEN® HELPS BOTH.

NEW: LONG-LASTING CONTROL OF KEY INSECTS IN CANOLA, CEREALS AND SUNFLOWERS, A TRUSTED CHOICE FOR YOUR FIRST SPRAY OF THE SEASON.

DuPont™ Coragen®
insecticide
powered by RYNAXYPYR®

New! DUPONT™ CORAGEN® INSECTICIDE IS NOW REGISTERED FOR USE ON CEREALS FOR THE CONTROL OF GRASSHOPPERS, CUTWORMS AND ARMYWORMS.

Since it was launched in 2008, DuPont™ Coragen® insecticide has quickly become the product of choice for growers of potatoes and many other vegetables. Coragen® allows growers to take action to defend the yield and quality of crops like canola, cereals, sunflowers and more.

Powered by Rynaxypyr®, DuPont™ Coragen® is a reliable and flexible broad-spectrum insecticide, providing remarkable plant protection and extended control of many pests while having minimal impact on beneficial insects and pollinators when applied at label rates[1].

Novel mode of action through ingestion resulting in:

- Muscle contraction and paralysis
- Rapid feeding cessation
- Immobility
- Death

Major benefits include:

- Provides extended control, including translaminar movement
- Application and harvest flexibility
- Active ingredient from a novel group of chemistry with no cross resistance to other chemistries
- Controls hatching insects all the way through to adult stages of development
- Low use rates and low mammalian toxicity
- Its unique environmental and toxicological profile, make Coragen® a sound choice for growers and applicators.

Active Ingredient: Rynaxypyr® (scientific name – Chlorantraniliprole)
Chemical Group: Group 28, Anthranilic diamide
Packaging: 6 L jug x 2/cs. 40 ac per jug at high rate
Formulation: Liquid suspension
Re-entry Period: 12 hours
Pre-harvest Interval: 1 day

DuPont™ Coragen® is also registered for aerial application.

[1]In line with Integrated Pest Management and Good Agricultural Practices, insecticide applications should be made when pollinators are not foraging to avoid unnecessary exposure.

THIS INNOVATIVE PRODUCT DELIVERS POWERFUL ACTION IN 3 ESSENTIAL WAYS:

Action # 1: Immediate control. Just as soon as it's applied, Coragen® takes action immediately. It stops pests from feeding on the plant tissue by immobilizing the muscles they use to feed. This ultimately decreases the yield-reducing damage that can be done to the plant.

The active ingredient in Coragen®, Rynaxypyr®, controls insects through a new mode of action – the activation of insect ryanodine receptors (RyRs). These receptors play a critical role in muscle function. Application of Coragen® produces rapid cessation of feeding, lethargy, regurgitation and muscle paralysis, ultimately leading to death *(see Figure 1).*

Action # 2: Extended control. Coragen® provides extended control, which helps decrease the number of applications needed for managing targeted pests. In terms of savings in time and money, that's a victory in itself.

Coragen® moves into the leaf tissue and becomes available to feeding pests on both the top and underside of the leaf. Studies have shown that this increased leaf surface coverage improves leaf protection by 32% compared to a competitive product and 97% versus no treatment *(see Figure 2).* This translaminar movement also protects the active ingredient from wash-off.

Action # 3: Elimination of pests at all growth stages. Growers know all too well that it's difficult to time an insecticide application to control pest threats that are at various stages of development. That's what makes Coragen® so valuable. Coragen® is highly effective at controlling pests at **all** growth stages *(see Figure 3).* To begin with, Coragen® is particularly potent against insects as they hatch from the eggs. When applied at the time of egg lay, the long-lasting activity of Coragen®, combined with its effects on eggs and larvae, stops the establishment and growth of pest populations, even at low use rates. For optimal control, use Coragen® at the Ovicidal or Ovi-larvicidal stage. Coragen® is also effective on many pest species at the adult stage. This makes it the ideal control product when multiple pest generations are present in the field.

DuPont™ Rynaxypyr® – Novel Mode of Action

- Muscle Paralysis
- Rapid feeding cessation
- Death within approximately 72 hours

Figure 1

Protection from Leaf Feeding

Rynaxypyr® | Methoxyfenozide | Untreated

Source: DuPont Stine-Haskell Research Centre – Delaware, USA.
(Note that these are laboratory tests for demonstration purposes only and that the active ingredients are not necessarily registered for the crop(s) or pest(s) mentioned.)

Figure 2

Effect of Eggs and Emerging Neonate Larvae

1. **Ovicidal:** Larvae died inside the egg before hatching.
2. **Ovi-larvicidal:** Larvae died inside the treated egg after ingesting a small portion of the membrane.
3. **Ovi-larvicidal:** Larvae died before completely exiting the egg.

Source: DuPont Paulinia Research Station – São Paulo, Brazil.

Figure 3

Coragen® is registered for use on the following crops:

- Brassica vegetables
- Canola New!
- Cereals New!
- Corn (field, sweet, seed, pop)
- Cucurbit vegetables
- Fruiting vegetables
- Grass forage, fodder and hay groups
- Leafy vegetables
- Legume vegetables New! (field peas, lentils and chickpeas)
- Mint
- Non-grass animal feeds (alfalfa, clover and lupin)
- Okra
- Potatoes
- Sunflowers New!
- Tuberous and corm vegetables

Coragen® is now registered for these insect pests:

- Armyworms New!
- Banded sunflower moth
- Bertha armyworm
- Cabbage looper
- Cutworms
- Diamondback moth
- Grasshopper New!
- Imported cabbage worm
- Sunflower head moth
- Swede midge

Refer to the Coragen® label for complete crop listing and use instructions.