# HatchTrak℠

*February 2021*

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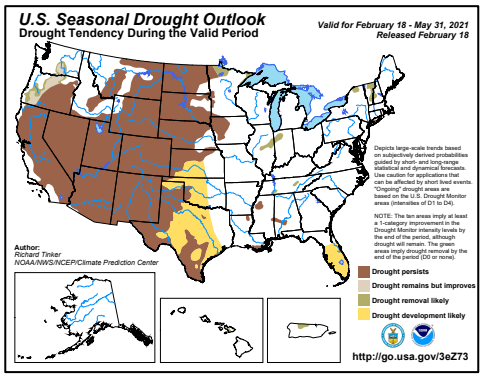
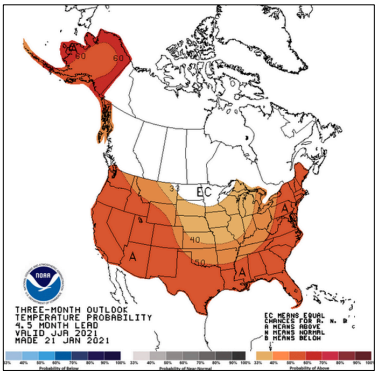
Looking at the Climate Prediction Center, much of the Great Plains is already in a drought and, according to the prediction models, we are not likely to have an above-average rainfall year. The result appears to be setting us up for a hot, dry spring and summer. According to Dr. Robert Wright, research and extension entomologist at University of Nebraska-Lincoln, spider mite populations do very well in hot and dry years for two main reasons:

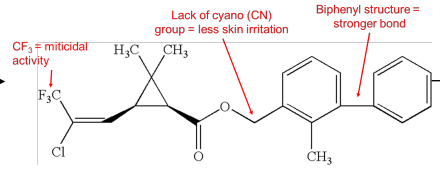
1. Dry, hot weather means less fungal disease. Mites don't like fungus.
2. Optimal temperatures for plant-feeding spider mites are higher than that of predatory mites.




Mite colonies have evolved to be survivors. That is why the best method of controlling two-spotted spider and Banks mites is often with other mites. Predatory mites and beneficial insects like ladybeetles are key players in keeping populations at bay. When growers target chewing insects like caterpillars with broad-spectrum products, they run the risk of killing these natural enemies of mites. Bifenthrin contains a trifluoromethyl group. The result is a more stable compound that has miticidal activity. When combined with other key active ingredients like Rynaxypyr® active, we can achieve reliable mite and insect management.

Alive




Dead

**BRIGADE 2EC** INSECTICIDE / MITICIDE

Bifenthrin (3A)

Corn, soybean, others

6.4 fl. oz./A

Reliable, effective on many pests including mites and aphids

**HERO** INSECTICIDE

Bifenthrin (3A) + zeta-Cypermethrin (3A)

Corn, soybean, others

10.3 fl. oz./A

Broad spectrum, dual active ingredient

**ELEVEST™** INSECT CONTROL

Bifenthrin (3A) + Rynaxapyr active (28)

Corn, soybean, others

7.7 – 9.6 fl. oz./A

Lengthy residual, great toxicological profile, multiple MOA

**Brigade 2EC insecticide/miticide, Hero insecticide and Elevest insect control are Restricted Use Pesticides.**


**Contact your local FMC representative for more information.**

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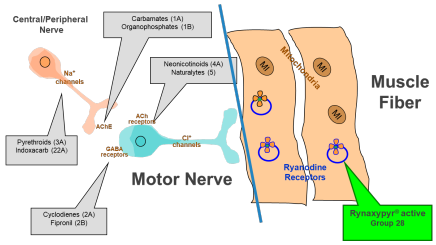
# HatchTrak℠

Insect management can be difficult in the Great Plains. Resistance, untimely weather, shifting emergence and flight patterns – even product cancellations like chlorpyrifos.

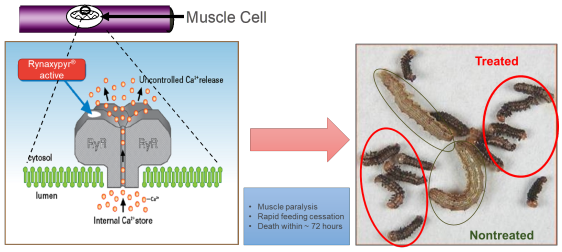
FMC strives to stay ahead of the curve with newer, innovated and more effective technology. Rynaxapyr® active is a new class of chemistry that provides excellent Lepidopteran control, lengthy residual, minimal impact on beneficials and a favorable worker safety profile.

## 1. Novel mechanism of action that is great for resistance management

**INSECT NEUROMUSCULAR PATHWAY**




**NOVEL CHEMISTRY AND UNIQUE MOA**




## 2. Minimal impact on beneficial arthropods

**RYNAXYPYR® ACTIVE HAS MINIMAL IMPACT TO MOST BENEFICIAL ARTHOPODS**

| GROUP | ORDER | FAMILY | SPECIES | RESULT |
|---|---|---|---|---|
| Predators | Neuroptera<br>Lacewings | Chrysopidae | *Chrysoperla carnea*<br>*Mallada signatus* | ● |
| | Coleoptera<br>Ladybird beetles | Coccinellidae | *Hippodamia convergens*<br>*Hippodamia variegatta*<br>*Harmonia axyridis* | ● |
| | Hemiptera<br>Predatory bugs | Nabidae | *Nabis kinbergii* | ● |
| | | Anthrocoridae | *Orius insidiosus*<br>*Anthocoris nemoralis* | ● |
| | | Miridae<br>Lygaeidae | *Deraeocoris brevis*<br>*Geocoris punctipes* | ● |
| | Acari<br>Predatory mites | Phytoseiidae | *Amblyseius herbicolus*<br>*Amblyseius andersoni*<br>*Kampimodromus aberrans*<br>*Euseius citrifolius*<br>*Iphiseiodes zulugal*<br>*Typhlodromus occidentalis*<br>*Typhlodromus pyri* | ● |

● Minimal impact, (0-30% mortality). Rating according to IOBC/ WPRS Working Group, Hassan et al. 1988.

**RYNAXYPYR® ACTIVE HAS EXCELLENT SELECTIVITY TO BENEFICIAL ARTHROPODS I.E. PARASITIC WASPS & POLLINATORS**

| GROUP | ORDER | FAMILY | SPECIES |
|---|---|---|---|
| Parasitoids | Hymenoptera<br>Parasitic wasps | Trichogrammatidae | *Trichogramma pretiosum*<br>*Trichogramma chilonis* |
| | | Braconidae | *Aphidius rhopalosiphi*<br>*Bracon hebetor*<br>*Dolichogenidea tasmanica* |
| | | Encyrtidae | *Ageniaspis citricola* |
| | | Aphelinidae | *Aphelinus mali* |
| Pollinators | Hymenoptera<br>Honey bees | Apidae | *Apis mellifera* |

● Minimal impact, (0-30% mortality). Rating according to IOBC/ WPRS Working Group, Hassan et al. 1988.

## 3. Highly-effective, translaminar and residual control

**EXCELLENT CROP PROTECTION – LAB RESULTS**

(48 hours feeding duration, corn earworm)
Rynaxypyr® active

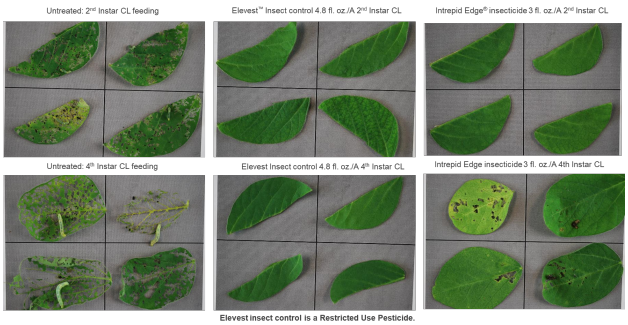
Untreated

Intrepid Edge® insecticide 6 fl. oz./A

Prevathon® insect control 14 fl. oz./A

Location: FMC Stine Research Facility, Newark, DE, 2018.

**ELEVEST™ INSECT CONTROL – EFFECTIVE ON DIFFICULT-TO-CONTROL PESTS**




Elevest insect control is a Restricted Use Pesticide.

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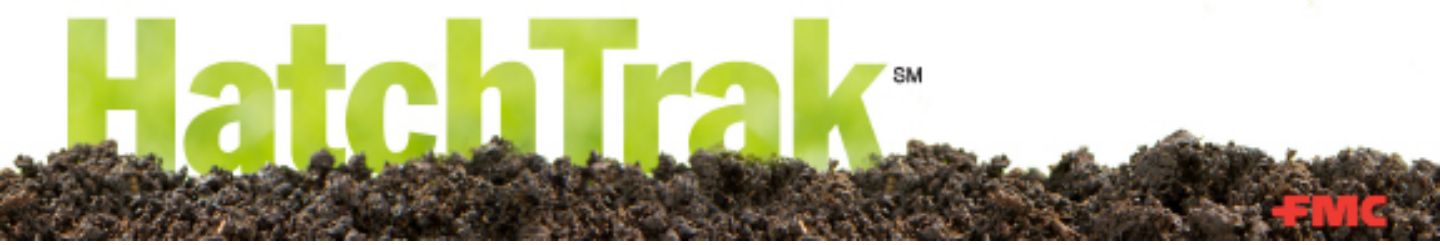


PREVATHON® INSECT CONTROL | RYNAXYPYR® ACTIVE

- Rynaxypyr® active (Group 28)
- 14 – 20 fl. oz./A
- Excellent Lepidopteran and grasshopper control
- Favorable toxicological profile
- Resistance management tool
- 14+ days of residual

VANTACOR® INSECT CONTROL | RYNAXYPYR® ACTIVE

- Rynaxypyr active (Group 28)
- 1.2 – 1.7 fl. oz./A
- Lower application rates
- Better compatibility
- Rainfastness when allowed time to dry
- Same reliable efficacy

ELEVEST™ INSECT CONTROL | RYNAXYPYR® ACTIVE

- Rynaxypyr active (IRAC 28) + Bifenthrin (IRAC 3A)
- 4.8 – 9.6 fl. oz./A
- Knockdown + residual
- Broader spectrum
- Improved control on loopers, mites and stinkbugs
- Corn, succulent peas and beans, dry beans, potatoes and soybeans.

Vantacor® insect control, an improved version of Prevathon® insect control, contains Rynaxypyr active, the industry leader in Lepidopteran control in soybeans and corn. If the hot, dry days of summer are upon us and mites are a concern, products with Rynaxapyr active will work with you and the beneficial insects rather than causing flare ups. For broader spectrum control of tough insects at all life stages, choose Elevest® insect control, which uses the residual and selective power of Rynaxapyr active and combines it with the reliable knockdown and miticidal activity of Brigade® 2EC insecticide/miticide.

It's a new era in insect management for Great Plains corn and soybeans.

## LEARN MORE AT AG.FMC.COM