

GUARDX™

INSECT MANAGEMENT + ROOT REGEN

GuardX™ is an EPA-registered bioinsecticide. Originally introduced to help repel corn rootworm larvae at the root zone, the label is being expanded for the 2026 growing season to include additional pests and crops. GuardX also activates the plant's immune system, and sets the plants up to more efficiently withstand abiotic stresses.

MODE OF ACTION

Induced Systemic Resistance (ISR)

- Activates the plant's natural defenses where applied
- GuardX colonizes the plant starting at the root, triggering a whole-plant response that primes the plant's natural defenses and helps it respond more effectively to future pest pressure.

PRODUCT BENEFITS

- **Novel mode of action for insect biocontrol for crops**
- **Season-long benefits and no extra trip on the field – convenient planter box application.**
- **Enhances the root structure, providing increased yield under varying insect pressure.**
- **Triggers plant defenses decreasing larval feeding.**
- **Aggressive regrowth at the site of damage.**

APPLICATION METHODS

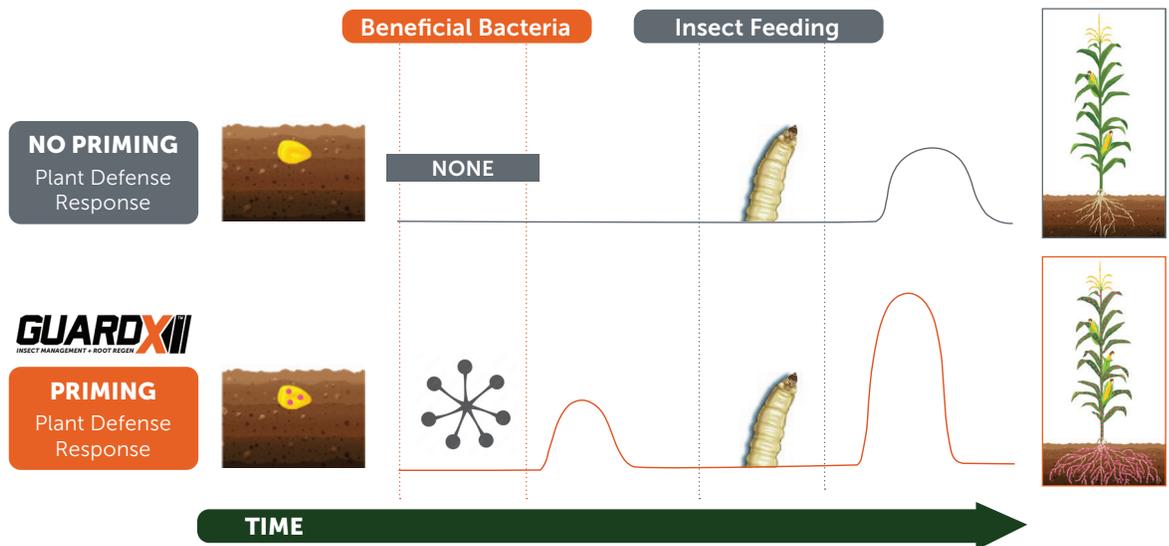
GuardX can be used as a planter box application through Meristem's patented Bio-Capsule™ delivery system. Please consult the product label for more details.

GuardX has a two-year shelf life.

HOW ISR WORKS

GuardX interacts with the plant to prime the plant's ISR immune defense system. The GuardX treated root produces chemicals which confuse or repel CRW larvae, making it harder for the larvae to find the corn roots.

GuardX provides root regrowth and recovery stimulation for when larvae reach the root and feed.



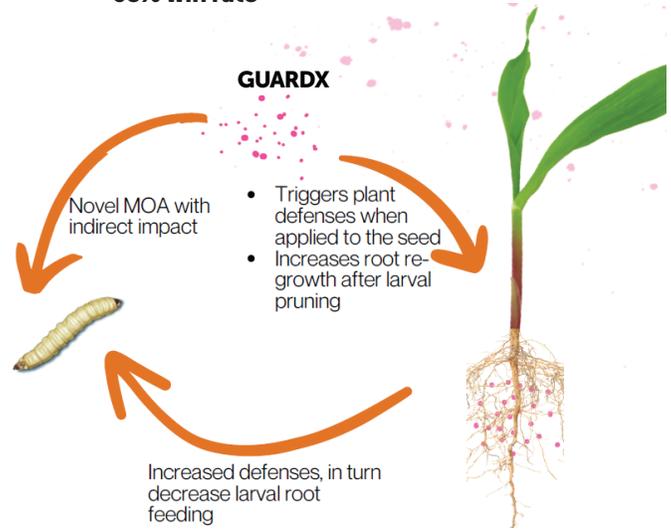
| Crop | Pest | Stage | Impact |
|----------------|--------------------|----------------------|--|
| Corn | Root Knot Nematode | Eggs | Reduced Population |
| | Corn Rootworm | Juveniles | Reduced Feeding |
| | Corn Wireworm | Juveniles | Reduced Population |
| | Fall Armyworm | Juveniles | Reduced Population, Reduced Feeding/Damage |
| Soybean | Root Knot Nematode | Juveniles | Reduced Population |
| | Soybean Looper | Juveniles | Less Weight Gain |
| | Stink Bug | Adults and Juveniles | Reduced Population |
| Cotton | Root Knot Nematode | Juveniles | Reduced Galling |
| Rice | Water Weevil | Juvenile | Reduced Population |

GUARDXTM

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In 65 multi-year, large plot field trials across 9 states, GuardX has show an average yield **increase of +8.8 bu/ac compared to grower standard practice**. This average is an aggregate of trials with and without CRW pressure.

- + 8.0 BU/A Win Advantage*
- 65 data points
- 68% win rate



Pairing GuardX with a crop-specific biostimulant like Revline[®] can increase nutrient uptake and improve ROI for the grower in a variety of conditions (show above and at right).



RESULTS & USE

The effects of GuardX can vary depending on the pest and the crop. Through ISR activation, GuardX helps support the plant's natural defenses throughout the growing season. Some listed pests may be affected during the egg or larval stages, while others may experience disruption later in their lifecycle as adults. This added layer of defense can help manage listed pests that may go unnoticed and may reduce the likelihood of populations reaching levels that require rescue treatments.

GuardX should be used as part of an integrated pest management (IPM) program including traited seed and/or soil insecticides to prevent resistance of conventional program. Bioinsecticides are not subject to resistance, so using with conventional program will enhance longevity of IPM program.

