

# Management Recommendations for Corn Rootworm

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## Understanding Regional Pest Dynamics



**Corn rootworm is one of the biggest economic corn pests in the U.S., causing an estimated yield loss of about \$3 billion annually.<sup>1</sup>**



**In certain geographies of the Midwest, corn rootworm pressure is increasing.<sup>2</sup>**



### Key Factors

- **Propensity of These Species to Adapt to Different Management Practices:** Crop rotation, insecticides, and corn rootworm transgenic (Bt) hybrids
- **Migration:** Ability of adults to move between and within fields



Left to right: southern corn rootworm (spotted cucumber beetle), western corn rootworm, and northern corn rootworm. Photo by Adam Varenhorst.



Corn rootworm larvae (note the dark head and tip of abdomen). Photo by Marlin E. Rice.

## Need for Understanding Individual Field Risk

Successful management starts by understanding the status of corn rootworm pressure on a field-by-field level.

### Factors to Determine High-Risk Fields

#### ■ Crop Rotation

- Corn-on-corn encourages high larval populations and resulting root injury
- Corn-on-soy can favor variants of northern and western corn rootworm

#### ■ Previous Year Population (Regionally)

- Increased abundance from previous year adult monitoring data
- Consult local extension for information on CRW and Adult Trapping Network | Corn Rootworm IPM ([iastate.edu](http://iastate.edu))

#### ■ Insecticide History

Poor performance of soil-applied insecticides or foliar applications in previous years

#### ■ Field History

- Crop history for 3-5 years
- Yield losses from poor pollination or root feeding
- Pest activity (root injury, stalk lodging, silk clipping, adult trapping)



**Scan Here to See Current Corn Rootworm Adult Trapping Network Results**

**Sources – 1:** Culliney, Thomas W. "Crop Losses to Arthropods." In Integrated Pest Management: Pesticide Problems, Vol. 3, 201-225. Dordrecht, The Netherlands: Springer Science + Business Media, 2014. Pinstrup-Andersen, Per. "The Future World Food Situation and the Role of Plant Diseases." In the Plant Health Instructor. 2001. DOI: 10.1094/PHI-I-2001-0425-01. <http://bit.ly/2paZIAQ>.

**2:** <https://brownfieldnews.com/news/beans-agronomist-says-rootworm-pressure-up-in-iowa/>.

# IPM for Corn Rootworm is Critical

Controlling corn rootworm populations is a whole system, multi-year approach. Fields known to have heavy rootworm pressure, even the best management systems, will still experience some level of larval feeding and adult survival. That is why it is imperative to utilize multiple tactics over years to reduce and control on-farm populations.



**Rotate from corn to non-host crop**



**Utilize in-furrow insecticide**



**Use the most up-to-date pyramid traited corn hybrid**



**Rotate insecticide MOA**

## Nurizma<sup>®</sup> Insecticide: A Novel Mode of Action, Broad Spectrum Insecticide for Corn Rootworm Control

For corn farmers who want confidence in rootworm control, Nurizma insecticide is a new product with a novel mode of action from BASF. Nurizma insecticide targets rootworm at the source and provides powerful protection for roots to help ensure a successful season.



### First and Only Registered IRAC Group 30 Insecticide = More Consistent Rootworm Control

- No known cross resistance
- Broad-spectrum activity
- More complete insect control
- Stronger roots, better stands



### Not a Restricted Use Pesticide

- “Caution” signal word
- Minimal PPE requirements
- No required bookkeeping
- Hassle free loading, mixing and application
- Greater operational efficiency



### Low Use Rate

- 1 fl oz/A  
(30 inch rows)
- Less packaging and waste
- Easier handling and disposal



### Best Management Practices for Nurizma Insecticide

- Follow label directions
- In-furrow application only
- Use the full labeled rate: 0.07 fl oz/1000 ft
- Use minimum of 5 GPA water volume
- Mix using in-line injection system
- Ensure in-furrow system is maintained and calibrated per manufacturer specifications

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Scan here to learn more about Nurizma Insecticide and to find your local BASF Representative.

**Nurizma<sup>®</sup>**  
Insecticide