

SCOUT FOR CORN ROOTWORM



EVERY KERNEL COUNTS

CORN-GROWING AREA

Each year, corn yields are adversely impacted by a number of pests, and one of the most devastating is the corn rootworm. As the economics of corn drive more farmers to move to corn-on-corn production, they are often faced with additional challenges not typically encountered in a traditional corn-soybean rotation. Approximately 50 million acres of corn production face pressure from corn rootworm. The U.S. Department of Agriculture estimates that damage caused by corn rootworm totals \$1 billion annually.¹

Scouting steps

In areas with high corn rootworm pressure, growers should perform root digs each year to assess current root damage and determine a corn rootworm management strategy for next year. Here's how:

For larvae

1. Check insectforecast.com to find out when corn rootworm larvae will hatch in specific areas, usually mid-June through mid-July. At insectforecast.com, you can sign up for alerts that keep you armed with the latest information. When hatch is predicted, test an adequate number of sampling areas throughout the field.
2. To evaluate corn rootworm feeding, dig an area of soil approximately 6 inches away from the base of each plant to collect the full root system.
3. When washing the roots, carefully examine the soil for the presence of larvae and count the number of insects present.
4. If there are large numbers of larvae and/or they are relatively young (1/8-1/4 inch in length) the likelihood of more feeding should be expected. In contrast, if the larvae are mature (1/2 inch in length) and the larvae counts are relatively low, it is likely that much of the root feeding has already occurred.
5. Evaluate the amount of feeding on the roots using the IA State Node Injury Scale (0-3) to help quantify root damage (<http://www.ent.iastate.edu/>).



Corn rootworm larvae are creamy white with a brown head.



Adult beetles are yellow to light green and have three black stripes on their wings.

For adult beetles

1. Start scouting in July and continue scouting weekly until threshold levels are exceeded or beetle activity stops.
2. Examine 50 plants per field and take samples from each quarter of the field.
3. Sample plants that are several paces apart so that examination of one plant does not drive off beetles on the next plant that will be sampled.
4. Adult beetles feed on corn leaves, pollen, soft kernels and silks so examine the entire plant for beetles.
5. The potential exists for a high corn rootworm population again the next season if the number of adult beetles exceeds 3/4-1 beetle per plant.

Scouting findings

Corn rootworm may tunnel inside the larger roots or prune roots back by feeding toward the base of the stalk. Damage may be limited to a single node or consist of multiple whorls of roots chewed back. Root damage from larval feeding consists of brown scars along the side of the roots.



Damaged Roots

Adult beetles may be present while below ground evaluations reveal larvae still feeding on corn roots.



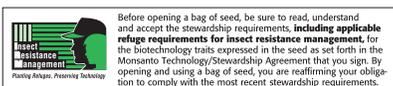
Healthy Roots

Management

With Genuity® SmartStax® RIB Complete® corn blend you can protect your corn-on-corn acres all season long. It offers maximum insect control to protect yield, even in high-pressure situations, with two modes of action to control corn rootworm.

insectforecast Go to insectforecast.com for more information about the risk of corn rootworm.

¹ <http://www.monsanto.com/products/Pages/about-the-corn-rootworm.aspx>
<http://extension.usu.edu/files/publications/factsheet/western-corn-rootworm.pdf>
http://web.missouri.edu/~hibbardb/CV_files/vezicetalHPR34-1101-1107.pdf



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