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Corn rootworm larvae are actively feeding on your corn

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Abstract
We often use a general rule that "corn rootworm eggs hatch on June 6." On June 7, Jim Oleson, agricultural specialist, Department of Entomology, dug corn plants from our research plots and placed them in Fromm funnels to extract corn rootworm larvae from the soil. The funnels are made of plastic drink cups and fiberglass window screen that hold the plants and soil over water as they dry. As the samples dry, larvae crawl out and fall into the water below. This facilitates the collection of very small, newly hatched larvae. If you would like more information on how to construct and use the Fromm funnels, instructions can be found at Colorado State University.

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Corn rootworm larvae are actively feeding on your corn

by Jon Tollefson and Marlin E. Rice, Department of Entomology

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Larvae did emerge from the plants, documenting that egg hatch was underway by June 7. Most of the larvae were first instar, meaning newly hatched, but a few were larger. About one-tenth of the larvae had already reached the second instar, or were about half grown. This would indicate that hatch in central Iowa began earlier than June 6—probably around June 1.

Another general rule we have used is that the adult corn rootworms will emerge from the soil over the July 4th holiday. With the slightly earlier hatch in central Iowa, we may see the adult beetles around the weekend preceding July 4.

What are the management implications? With egg hatch underway for two weeks, it should be easy to find the larvae if they are feeding on your corn. That means it would be a good time to check plants to see if the insecticide is working or if you have rootworm larvae present in rotated corn. Just finding the adults on the plant later doesn’t mean that they actually came from that field; finding the larvae on the roots of first-year corn means you have an infestation of rotation-resistant corn rootworms (assuming that they are the northern corn rootworm or western corn rootworm species and not the southern corn rootworm).

It also means that you are at the very end of the window for applying a postemergence corn rootworm larval control treatment. The next week will be the period of maximum larval feeding and any plant protection that will offer control should have been applied by now. Application from this point on will have reduced effectiveness because most of the injury will already have occurred.

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