

IOWA STATE UNIVERSITY

Extension and Outreach

Integrated Crop Management

Corn Rootworm Egg Hatch Peaking in Southern Iowa

June 18, 2019

Corn rootworm egg hatch in Iowa typically occurs from late May to the middle of June, with an average peak hatching date of June 6 in central Iowa. In 2019, the average hatching date will be behind the average, due to cool spring temperatures. Development is driven by soil temperature and measured by growing degree days. Research suggests about 50% of egg hatch occurs between 684-767 accumulated degree days (base 52°F, soil). Most areas in Iowa have reached peak corn rootworm egg hatch (Fig. 1).

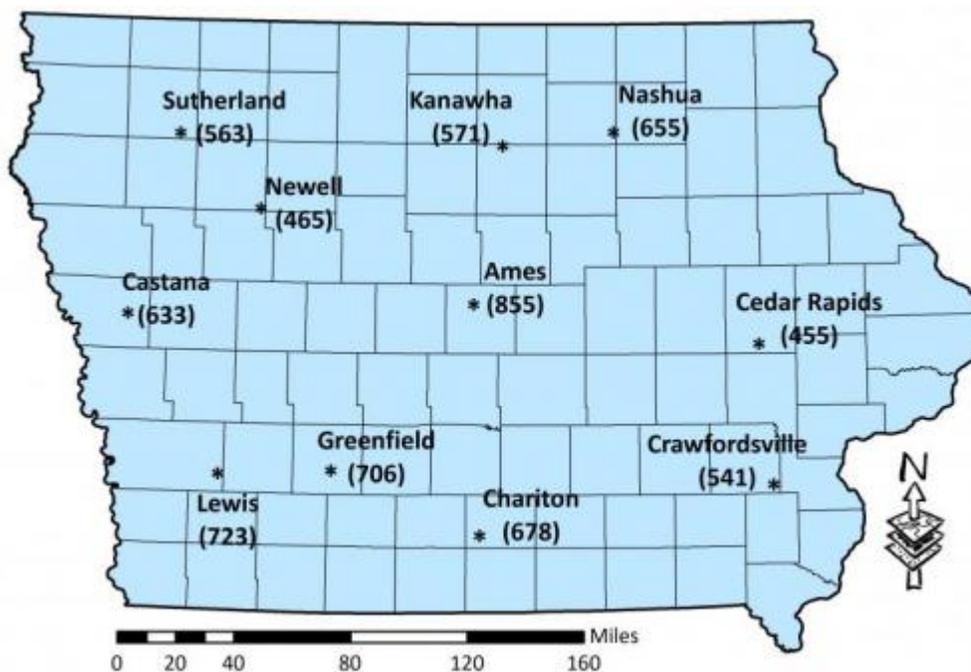


Figure 1. Accumulated soil degree days in Iowa as of June 17, 2019. Expect 50 percent corn rootworm egg hatch between 684-767 degree days. *Map data*

courtesy of Iowa Environmental Mesonet, Iowa State University Department of Agronomy.

To generate degree day accumulation on corn rootworm egg hatch for your area, use the ISU Agronomy [Mesonet website](#). To create an accurate map, make sure to set the start date to January 1 of the current year and the end date to today, and set the plot parameter to “soil growing degree days (base = 52).” Be aware that some locations are having some technical difficulties with the soil temperature probes this year.

A severe corn rootworm larval infestation can destroy nodes 4-6; each node has approximately 10 nodal roots. Root pruning can interfere with water and nutrient uptake and make the plant unstable (Photo 1). A recent meta-analysis showed a 15% yield loss for every node pruned.



Photo 1. Severe root pruning by corn rootworm larvae can dramatically impact yield. Photo by Aaron Gassmann, Iowa State University.

Regardless of agronomic practices to suppress corn rootworm (e.g., crop rotation, Bt rootworm corn, or soil-applied insecticides), every field should be scouted for corn rootworm root injury. Continuous cornfields and areas with Bt performance issues are the highest priority for inspection. Looking at corn roots 10-14 days after peak egg hatch is encouraged because the feeding injury will be fresh. Assess corn rootworm feeding and adjust management strategies if the average injury is above 0.5 on a 0-3 rating scale. Also

consider monitoring for adult corn rootworm to supplement root injury assessments. Aaron Gassmann, Iowa State University corn entomologist, has a webpage for [additional corn rootworm management information](#) including an interactive node-injury scale demonstration and efficacy evaluations.

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Category: [Crop Production](#)

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