

What Are These Caterpillars Doing To My Corn?



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Spring is here again and with its arrival farmers are hard at work planting their crops in the Midwest. This year, weather conditions have been favorable and, as such, many farmers have already planted their corn and are making plans to put soybeans in the ground shortly. While farmers are working, their insect foes are hard at work as well. One of those foes is the black cutworm.

Black cutworm, *Agrotis ipsilon*, is a common pest of corn that does not generally overwinter in Midwestern states. Rather these members of the Noctuidae family fly and are carried northward by springtime storm fronts from southern and southwestern states where they can survive the winter months.

In Illinois, more than 75 percent of the corn crop has already been planted as of May 1. Seedling corn is highly susceptible to damage by black cutworms, so farmers are encouraged to scout fields for potential black cutworm injury.

Black cutworm moths will lay their eggs on crop residue, and since they prefer soybean residue over corn, first-year corn is generally at greater risk to black cutworm injury than continuous corn.

Another highly effective tool for black cutworm management is knowledge of when these moths first arrived in your area. Traps baited with an attractant pheromone have detected an intense flight of these moths in much of Illinois from April 23 to April 26. Using the date of this first intense capture as the biofix date, one can calculate how long it will take the progeny of these arriving moths to develop enough to cause damage in your corn field. This is done by calculating the number of degree-days that have elapsed since their arrival.

Degree-days are an effective tool to help determine when to start scouting for black cutworm larvae. Degree-day accumulation begins with an intense capture of moths (nine or more cumulative moths caught in pheromone traps over two consecutive days).

Black cutworm larvae normally begin cutting corn when approximately 300 degree-days, (base 50 degrees F), are accumulated after an intense capture occurs. Cutting dates for Illinois farmers can be predicted by using the Degree-Day Calculator at the University of Illinois IPM (www.ipm.uiuc.edu/degreedays/) and WARM (www.sws.uiuc.edu/warm/pestdata) websites. Farmers in other states as well as Illinois can use models supplied by their state Ex-

tension service or the USPEST calculator at <http://uspest.org/wea/>.

Early signs of cutworm feeding are pinholes in the leaves of newly emerged seedlings. This symptom can occur before 300 degree-days have accumulated.

Areas of fields in which early-season weeds (winter annuals and perennials) were growing at the time moths flew in are at a higher risk than weed-free fields. If tillage or herbicides eliminate weeds one to two weeks before planting, black cutworms that had been present probably starve to death. The presence of weeds only a few days before planting increases the likelihood of cutworm damage if larvae are



Black cutworm larva and cut corn seedling.

Photo courtesy of University of Illinois

present in the field.

Even though corn may have been treated with a neo-nicotinoid seed treatment such as Poncho®, field scouting is still warranted. Cut, missing or wilted corn plants are typical symptoms of black cutworm larvae damage. Feeding mainly at night, larvae will move up the row as they feed. On average, one larva may cut three to five plants in its lifetime.

Treatment thresholds are when 3 to 5 percent or more of the plants are cut and larvae are present. One should also consider the location of the cutting (above or below the growing point), size of the cutworm, and the soil conditions (moist or dry).

For further information on this pest, including scouting and management strategies, contact your local Extension office. Δ

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