Is Preventative Black Cutworm Control Worth It?

By Erin Hodgson, Department of Entomology

Many growers are getting their corn planted ahead of schedule and thinking about making the first weed control application. Some might think tank-mixing a preventative insecticide with a herbicide will save money and protect yield from early season corn pests such as cutworm and grubs.

Black cutworms are only an occasional corn pest in Iowa, but this insect still deserves attention due to its potential to cause economic loss. Currently seed treatments and genetically modified hybrids do not fully protect against cutworms, so corn is still at risk every year to migrating black cutworm moths.

Production practices that favor black cutworm damage include late tillage and late planting. That is good news for all the fields planted early this year. Corn planted after soybean is also more likely to get infested than in continuous corn. Poorly drained, weedy fields or fields located near native vegetation can also be attractive to egg-laying females.

The price of corn seed is rising fast and a prophylactic treatment to protect young corn is a convenient option for high risk fields. But there are several reasons, previously explained by Martin Rice, why tank-mixing an application right now is not a financially or environmentally sound decision.

1. **Black cutworm infestations have been historically sporadic and patchy**, and the last serious outbreak was in 1984. A just-in-case treatment does not follow IPM guidelines and may be a waste of money.

2. **So far, adults have been trapped in low numbers throughout Iowa.** We haven't reached peak moth flight yet and predicted cutting dates are still not determined for 2010. Applying an insecticide too early may not fully protect plants after emergence and a second treatment may be necessary to knockdown damaging cutworm larvae.

3. **A typical foliar insecticide product ranges from $5-15/acre.** Even a generic product will increase overall production costs, especially for large operations.

Scouting for young black cutworms will help determine infestations and damage potential. Start looking for small, irregular holes on leaves (Figure 1) after corn emerges. Look at 50 plants in five locations per field. Signs of cutworm activity include discolored or wilted leaves, and missing plants. Only older larvae (more than 1/2 inch in length) are capable of cutting plants and can be found in the soil during the day. Continue scouting for cutworms until plants reach 15 inches tall or the V5 growth stage. That doesn't mean to stop scouting in corn because mid-season corn pests, like stalk borers, will begin their summer feeding activity.

A [dynamic threshold calculator](#) was developed last year and can be a useful management tool. In general, a foliar insecticide may be warranted if:

- Two to three percent of plants are wilted or cut, and black cutworm
larvae average less than 3/4 inch in length.

- Five percent of plants are wilted or cut when black cutworm larvae are greater than 3/4 inch in length.

- One to two percent of plants wilted or cut if poor plant populations (more than 20,000/acre) exist.

Figure 1. Common young black cutworm damage in young corn

Erin Hodgson is an assistant professor of entomology with extension and research responsibilities. She can be contacted by email at eward@iastate.edu or phone (515) 294-2847.