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Preventive cutworm treatments in corn

Marlin E. Rice
Iowa State University, merice@iastate.edu

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Abstract
It is happening again. Several insecticide companies are promoting the application at planting of their insecticides in corn solely for the purpose of preventing black cutworm damage, which is not a good integrated pest management practice. A list of my concerns and good integrated pest management alternatives follow.

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Concern 1: Necessity of preventive insecticide treatments

The basic principles of integrated pest management ask the following questions:

- Can the insect be scouted?
- Can the economic damage be predicted based upon field scouting?
- Can a rescue insecticide be applied if needed?
- Can the rescue insecticide provide equal or better control than the preventive insecticide?

The answer to all four questions is "yes." The use of an insecticide applied as a preventive treatment cannot be economically or environmentally justified when a rescue treatment can provide equal or better control.

Concern 2: Black cutworm migration

Black cutworm adults (moths) are migratory and fly into Iowa from Texas. Captures of male black cutworms in pheromone traps tell us when they arrive, but the trap captures do not tell us in what fields females lay their eggs, how many eggs they laid, what the cutting potential is, or whether the moths stayed within the county where individuals were trapped. In fact, the moths may continue their migration the following night into Illinois, Minnesota, or Wisconsin. Several years ago, our trap catches allowed us to predict that black cutworm cutting would begin between May 18 (southeastern Iowa) and May 25 (northern Iowa). The first cutting was reported in eastern Iowa on May 22. This first cutting date was nearly 5 weeks after the first corn was planted, which is an extremely long time to expect an at-planting insecticide to still be effective.

Concern 3: Potential for cutworm damage

The last serious cutworm outbreak occurred in Iowa was 1984. Recent information strongly suggests that the threat of black cutworm damage on a large scale is overrated. The probability of black cutworm damage is very low in any field, particularly if the field is free of

broadleaf weeds during April and early May.

Concern 4: Insecticide cost

These insecticides are not cheap. For the low- and high-end label rates, cost will be approximately $4.64 to $17.90 per acre, depending on the product used. Costs also vary from dealer to dealer.

Concern 5: Insecticide performance guarantees

One company may guarantee that its insecticide provides control of cutworms when applied as a preemergence treatment, whereas another company may state that with one preplant application for cutworms, you have one less problem to worry about. Do not be lulled into a false sense of security with insecticide guarantees or claims. Any guarantee or claim is subject to the condition that the field must be scouted for insect damage. Just because an insecticide was applied to the field at planting does not preclude the possibility of crop injury by the insects later in the season.

Alternative to insecticides

There is a better alternative to black cutworm management than buying unnecessary insecticide and increasing on-farm input costs. This alternative is to have the fields scouted when first cutting is expected. Iowa State University has black cutworm traps in 75 Iowa counties. When the moths arrive, cutting time can be predicted and this information will be provided in this newsletter. Then you should scout the field, look for early signs of injury, and determine whether the economic threshold has been reached. Based on your findings, insecticide can be applied if it is really needed. Remember that black cutworm females may not lay eggs in your field and that you must always use insecticides wisely.

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