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Are preventive cutworm treatments needed?

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Abstract
Several insecticide companies are promoting the use of their insecticides as preplant treatments to prevent black cutworm injury to corn. Preplant treatment is not a good integrated pest management practice. Here are my concerns and an alternative strategy from an integrated pest management perspective.

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**Concern 1: Preventive insecticide treatments**

Should an insecticide be applied preplant, or at planting, specifically for black cutworms? To answer this question requires some thought about four additional questions regarding management of this insect:

1. Can the insect be scouted?
2. Can the economic damage be predicted based upon field scouting?
3. Can a rescue insecticide be applied? and
4. Can the rescue treatment provide equal or better control than the preventive treatment?

The answer to each question 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 the Iowa from Texas. Iowa State University has placed pheromone traps in 75 counties to determine when the moths arrive, but the traps do not indicate where the females lay their eggs, how many eggs they lay, what the cutting potential is, or even whether moths stay within the county where they are trapped. In fact, the moths may depart the next evening and continue their migration northward to Minnesota or eastward to Illinois. So even if moths are caught in the traps, it cannot be predicted with any certainty that the females have laid eggs in your field. Trap catch information gives a head start for predicting when to scout fields based on potential egg laying. This information will be posted in upcoming Integrated Crop Management newsletters.

**Concern 3: Potential for cutting**

The last time a serious cutworm outbreak occurred in Iowa was 1984. Recent history strongly suggests that the threat of black cutworm damage on a large scale is overrated. Problems do occur each year but seldom are more than a few thousand acres affected. 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 when females are laying eggs.

**Concern 4: Insecticide cost**

Insecticides are not cheap and the input of unnecessary costs decreases the profit margin.

**Concern 5: Insecticide guarantees**

An insecticide company may guarantee that its product provides control of cutworms when applied as a preemergence treatment. Do not be lulled into a false sense of security with promises of insecticide performance. Any guarantee or claim is subject to the condition that the field must be scouted for insect damage. Just because the field was sprayed early in the season does not preclude the possibility of crop injury by the insects later in the season. For you to receive the maximum benefit of the guarantee, your field must be scouted to confirm that the corn stand is being protected against stand loss.

**The alternative**

There is a better alternative to black cutworm management than applying an unnecessary preventive insecticide and increasing on-farm input costs. This alternative is to scout the fields when cutting is first predicted, look for early signs of injury, and determine whether the economic threshold has been reached. Then the insecticide can be applied if it is really needed. Remember, black cutworm may not lay eggs in your field.

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