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Preventive insecticides in corn for cutworms

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Preventive insecticides in corn for cutworms

Abstract

Each year, we encounter situations where corn planting is delayed and the necessity of whether to use a preventive insecticide for black cutworms is questioned. This article presents several points to consider before purchasing and applying an insecticide solely for the prevention of black cutworms.

Keywords

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Disciplines

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INTEGRATED CROP MANAGEMENT



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Concern 1: Using a preventive insecticide treatment

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 rescue treatments can provide equal or better control.

Concern 2: Black cutworm migration and egg laying are spotty

Black cutworm adults (moths) fly into Iowa from southern states. 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. For moths that do remain in Iowa, they may not lay eggs in all fields. Previous crop residue (soybean is preferred over corn), tillage, soil moisture, and winter annual weed growth all affect where females will lay eggs.

Concern 3: Potential for cutworm damage is low

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 is expensive

These insecticides are not cheap. For the low- and high-end label rates, cost could range from \$5.00 to \$17.00 per acre, depending on the product used and dealer incentives.

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 there is 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.

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. Look for early signs of injury and determine whether the economic threshold has been reached. Based on your findings, an insecticide can be applied if it is really needed. Remember that black cutworms may not lay eggs in your field and that it is to your advantage to use insecticides wisely and economically.

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