Scout now for western bean cutworms

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Scout now for western bean cutworms

Abstract
Western bean cutworms have caused significant damage to some cornfields in Iowa since 2000. To assist in scouting efforts for this pest, a network of pheromone traps have been placed in areas of historical western bean cutworm activity (see map). These traps should reflect the emergence pattern within a county area. Adults (moths) are now being collected and the results can be found at http://www.ipm.iastate.edu/westernbeancutworm. Some of the highest trap catches have been in Audubon, Crawford, and Shelby counties in west central Iowa, plus Butler County in north central Iowa. Now is the time to start scouting for western bean cutworm eggs.

Keywords
Entomology

Disciplines
Agricultural Science | Agriculture | Entomology

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Western bean cutworms have caused significant damage to some cornfields in Iowa since 2000. To assist in scouting efforts for this pest, a network of pheromone traps have been placed in areas of historical western bean cutworm activity (see map). These traps should reflect the emergence pattern within a county area. Adults (moths) are now being collected and the results can be found at http://www.ipm.iastate.edu/westernbeancutworm [1]. Some of the highest trap catches have been in Audubon, Crawford, and Shelby counties in west central Iowa, plus Butler County in north central Iowa. Now is the time to start scouting for western bean cutworm eggs.

Cornfields in the late-whorl stage are most attractive to the females for egg laying. Eggs are laid in masses of 5 to 200, usually on the upper surface of the top leaves. The eggs are about the size of a pinhead. The eggs are white when first laid and then they turn tan and finally purple just before the larvae hatch. Newly hatched larvae are approximately 1/4 inch in length and are dark brown. Young larvae are tan with a darker, faint diamond-shaped pattern on their backs. As the larvae mature, they become a pinkish tan or pale brown and reach a body length of 1 1/2 inches. Larvae first feed on pollen and then move to the corn ears, feeding there for several weeks before they drop to the soil where they overwinter. One larva per plant usually does not cause severe damage but the ears may contain up to 10 larvae, which can substantially reduce yield, because western bean cutworms are not cannibalistic, compared with corn earworms.
Start scouting for the western bean cutworm with the beginning of moth flight in mid-July. In corn, check 20 consecutive plants at five locations. The University of Nebraska recommends that if 8 percent of the plants have an egg mass or young larvae are found in the tassel, consider applying an insecticide. Timing of the application is critical. If the tassel has not emerged when the larvae hatch, they will move into the whorl and feed on the developing pollen grains in the tassel. As the tassel emerges, the larvae will move down the plant to the green silks and then into the silk channel to feed on the developing ear.

Once the larvae reach the ear tip, control is nearly impossible. If an insecticide is needed, time the application so that 90-95 percent tassel emergence has occurred. If the tassels have already emerged, the application should be timed for when 70-90 percent of the larvae have hatched. If an insecticide application is needed, cornfields should be checked for the presence of spider mite colonies. If mites are found, select a product that does not stimulate mite flare ups (reproduction).

**Insecticides labeled for western bean cutworm in field corn**

<table>
<thead>
<tr>
<th>Insecticide</th>
<th>Rate/Acre</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambush*</td>
<td>3.2-6.4 oz</td>
<td>May cause mite flare up.</td>
</tr>
<tr>
<td>Asana XL*</td>
<td>2.9-5.8 oz</td>
<td>May cause mite flare up.</td>
</tr>
<tr>
<td>Baythroid 2*</td>
<td>2.1-2.8 oz</td>
<td></td>
</tr>
<tr>
<td>Capture 2EC*</td>
<td>2.1-6.4 oz</td>
<td></td>
</tr>
<tr>
<td>Lorsban 4E*</td>
<td>1-2 pt</td>
<td></td>
</tr>
<tr>
<td>Mustang Max*</td>
<td>1.76-4.0 oz</td>
<td></td>
</tr>
<tr>
<td>Penncap M*</td>
<td>2-4 pt</td>
<td></td>
</tr>
<tr>
<td>Product</td>
<td>Quantity</td>
<td>Note</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Pounce 3.2EC*</td>
<td>2-4 oz</td>
<td>May cause mite flare up.</td>
</tr>
<tr>
<td>Sevin XLR Plus</td>
<td>2 qt</td>
<td></td>
</tr>
<tr>
<td>Warrior*</td>
<td>1.92-3.2 oz</td>
<td></td>
</tr>
</tbody>
</table>

*Restricted-use insecticide.

This article originally appeared on pages 129-130 of the IC-490(18) -- July 28, 2003 issue.

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