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Armyworm defoliating young corn

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Armyworm defoliating young corn

Abstract
Armyworms (sometimes called true armyworms) are reported defoliating a few fields in Iowa. Mark Carlton, Extension specialist-field crops, reports damage from Lucas County and Larry Metcalf, a producer, reports damage from Dubuque County.

Keywords
Entomology

Disciplines
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Armyworm in injury to whorl-stage corn, eating all of corn except for leaf midrib and stalk.

Armyworms should be scouted in minimum- or no-tilled fields that have any kind of living ground cover, especially grassy weeds. The adult moths migrate from the southern United States and are attracted to fields that were planted into a cover crop such as rye, or where grassy weeds exist. Females lay their eggs on the rye or grass and the young larvae feed on these plants. After consuming the rye or grass (or if the grass is killed with a herbicide), the larvae move onto the corn.

They usually confine their feeding to the leaf margins except when populations are very large; then they consume all the leaves except for the tougher midrib. Feeding starts on the lower leaves and as these leaves are eaten, the armyworms move to the upper leaves. Larvae do not tunnel into the stalk and they do not feed on the growing point, at least on larger plants. A field can be completely defoliated in a couple of days when armyworm populations are large. Cornfields that have grassy weeds sprayed with an herbicide should be closely scouted for armyworms as the weeds begin to die.

Threshold considerations

Young corn plants have a remarkable ability to compensate for early-season defoliation. Experiments at Iowa State University have shown that corn in the 7-8- and 9-10-leaf growth stages that sustained 50 percent defoliation in 1 day exhibited only a 2-3 percent and 4-6 percent yield loss, respectively. For corn that is in the 7-8-leaf stage, treatment of armyworms should be considered when larvae are less than 3/4 inch in length, the population exceeds eight larvae per plant, and 25 percent of the leaf area has been removed. If armyworms are less than 3/4 inch in length they still have another week or so to feed. If larvae are mostly 1 1/2 inches in length, then they are nearly done feeding and very little additional leaf injury will occur so the field should not be sprayed; it is too late for the insecticide to be of any economic benefit. Unfortunately, there are no data on economic thresholds for armyworms in
plants smaller than V7 so treatment decisions would be a judgment call.

Image: Armyworm injury to a cornfield.

Insecticides and tank mixes. Table 1 lists commonly available insecticides labeled for armyworm control in corn. The label for Warrior (although registered for use in corn) states that it should be used only against first and second instars. Armyworms this size have recently hatched and are unlikely to be found by most field scouts. Therefore, by the time a problem is detected, most armyworms will be much larger and beyond the control of Warrior. Consider tank mixing an insecticide with the herbicide if grasses are being killed in the field. Read and follow all label directions.

Table 1. Insecticides labeled for armyworms.

<table>
<thead>
<tr>
<th>Insecticide</th>
<th>Rate per Acre (Low and High Rates)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambush 2E</td>
<td>6.4-12.8 ounces</td>
</tr>
<tr>
<td>Asana XL</td>
<td>5.8-9.6 ounces</td>
</tr>
<tr>
<td>Baythroid 2</td>
<td>1.6-2.8 ounces</td>
</tr>
<tr>
<td>Capture 2EC</td>
<td>2.1-6.4 ounces</td>
</tr>
<tr>
<td>Discipline 2EC</td>
<td>2.1-6.4 ounces</td>
</tr>
<tr>
<td>Lorsban 4E</td>
<td>1-2 pints</td>
</tr>
<tr>
<td>Mustang Max</td>
<td>3.2-4 ounces</td>
</tr>
<tr>
<td>Nufos 4E</td>
<td>1-2 pints</td>
</tr>
<tr>
<td>Penncap-M</td>
<td>2-3 pints</td>
</tr>
<tr>
<td>Pounce 3.2EC</td>
<td>4-8 ounces</td>
</tr>
<tr>
<td>Sevin XLR+</td>
<td>2-4 pints</td>
</tr>
<tr>
<td>Warrior 1E or T</td>
<td>2.56-3.84 ounces (for control of 1st and 2nd instars only)</td>
</tr>
</tbody>
</table>

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