5-26-2015

True Armyworms Defoliating Corn Seedlings

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True Armyworms Defoliating Corn Seedlings

Abstract
The true armyworm is a migratory pest from the southern U.S. that feeds on the leaf tissue of early and late vegetative corn. Adult true armyworm moths are attracted to fields that contain living ground cover, which include fields with grassy weeds or cover crops such as rye or grass. Fields that are minimum, no-till, or contain a cover crop should be scouted for true armyworms in May and June (Fig. 1). Upon arrival, the female moth will lay eggs onto the living ground cover. After hatching, the young larvae will feed on these plants until the plants are completely consumed or removed with herbicides. When the initial host plants are no longer available, the larvae will then move to corn. True armyworm larvae are identified by dull orange stripes found on each side of their body (Fig. 2). In addition to the six legs found on the thorax of the true armyworm, they also have four prolegs with dark bands on their abdomen (Fig. 3A). True armyworms are also identified by the network of black lines present on their orange head capsule (Fig. 3B). On injured plants, larvae can generally be found in the whorl of the plant.

Keywords
Entomology

Disciplines
Agricultural Science | Agriculture | Agronomy and Crop Sciences | Entomology

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True Armyworms Defoliating Corn Seedlings

By Adam J. Varenhorst, Mike Dunbar, Erin Hodgson, Department of Entomology

The true armyworm is a migratory pest from the southern U.S. that feeds on the leaf tissue of early and late vegetative corn. Adult true armyworm moths are attracted to fields that contain living ground cover, which include fields with grassy weeds or cover crops such as rye or grass. Fields that are minimum, no-till, or contain a cover crop should be scouted for true armyworms in May and June (Fig. 1). Upon arrival, the female moth will lay eggs onto the living ground cover. After hatching, the young larvae will feed on these plants until the plants are completely consumed or removed with herbicides. When the initial host plants are no longer available, the larvae will then move to corn. True armyworm larvae are identified by dull orange stripes found on each side of their body (Fig. 2). In addition to the six legs found on the thorax of the true armyworm, they also have four prolegs with dark bands on their abdomen (Fig. 3A). True armyworms are also identified by the network of black lines present on their orange head capsule (Fig. 3B). On injured plants, larvae can generally be found in the whorl of the plant.

Figure 1. No-till fields or fields that had a cover crop should be scouted in May and June. True armyworms are capable of causing extensive injury to seedling corn plants. Photo by Adam Varenhorst.
True armyworm feeding typically begins on the lower leaves of the corn plant. As this leaf tissue is removed, the larvae will move to the upper leaves and continue feeding. Defoliation caused by true armyworms is limited to the leaf tissue, as these caterpillars do not tunnel into the stalk, and on larger plants they will not feed on the growing point (Fig. 4). For corn seedlings (VE – V2), it is recommended that treatment occur if 10 percent or more of the seedlings corn plants are injured and larvae less than ½ inch in length are still present. For corn that is in the 7-8 leaf stage (V7 – V8), treatment of true armyworms should be considered when larvae are less than ½ of an inch long, there are more than eight larvae per plant, and 25 percent of the leaf area has been removed. Larvae that are less than ¾ inch in length will feed for another week or so and may cause additional injury.
Figure 4. True armyworm larvae begin feeding near leaf edges and will consume all of the leaf except for the tougher midrib on later leaf stage corn. Photos by Adam Varenhorst.

If treatment is necessary, there are multiple insecticides to choose from (Table 1).

<table>
<thead>
<tr>
<th>Insecticide</th>
<th>Rate per acre for corn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asana XL*</td>
<td>5.8 to 9.6 ounces</td>
</tr>
<tr>
<td>Entrust</td>
<td>0.5 to 2 ounces (organically approved)</td>
</tr>
<tr>
<td>Lorbax 4E*</td>
<td>1 to 2 pints</td>
</tr>
<tr>
<td>Mustang Maxx*</td>
<td>3.2 to 4 ounces</td>
</tr>
<tr>
<td>Penncap-M*</td>
<td>2 to 3 pints</td>
</tr>
<tr>
<td>Pounce 25 WP*</td>
<td>6.4 to 9.6 ounces</td>
</tr>
<tr>
<td>Sevin XLR Plus</td>
<td>2 to 4 pints</td>
</tr>
<tr>
<td>Warrior II*</td>
<td>1.28 to 1.92 ounces</td>
</tr>
</tbody>
</table>

Table 1. Follow label instructions. *Restricted use pesticide. Table adapted from article by Brian Lang.

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This article was published originally on 5/26/2015. The information contained within the article may or may not be up to date depending on when you are accessing the information.

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