In the United States, damage from fall armyworm (FAW) can cause annual losses in corn. FAW larvae can cause extensive defoliation, damage the whorl, and feed on kernels of the developing ear. In addition, FAW ear feeding can increase the risk of mycotoxins, such as the development of aflatoxin. Although any growth stage can be targeted by FAW, later planted corn that has not yet begun to silk is preferred. Early scouting and accurate identification can help to protect yield potential.

**Life Cycle**
FAW moths migrate north, throughout the spring and summer, from overwintering sites in the southern states. Arriving moths lay eggs on corn leaves. Within 3 to 5 days, the eggs hatch into larvae and move toward the whorl.

**Identification**
FAW moths lay eggs on corn stalks and leaves in egg masses of 50-150 eggs. FAW egg masses can be distinguished from others by a layer of moth scales and fine bristles that cover them. Armyworm (AW) and western bean cutworm (WBC) also lay egg masses but they are not covered with a layer of scales and bristles while, corn earworm (CEW) lay single eggs.

Larvae of FAW, AW, CEW, and WBC are often mistaken for each other (Figure 1). Correct identification can impact management decisions. FAW larvae have an inverted Y on their head capsule and vary from light tan or green to almost black. Four dark spots are arranged in a square on top of the 8th abdominal segment. AW larvae have a gray or greenish-brown head covered with a network of lines. CEW larvae usually have an orange head. WBC larvae are tan with a darker, faint diamond shaped pattern on their back, and dark stripes immediately behind their head.

**Scouting**
Early FAW damage appears as ‘window paning’ and shot-holes in leaves. Damage from larger larvae results in ragged leaves (Figure 2). As corn ears develop, FAW larvae migrate from the whorls to the ears and damage kernels.

If whorl damage exists, scout 20 consecutive plants at 5 places in the field. Determine the percentage of plants damaged by FAW. Pull some whorls and unroll the leaves to make larval counts.

Figure 1. Commonly mistaken larva.

Figure 2. FAW damage on corn with larva in whorl.
Management

While YieldGard® Corn Borer technology offered suppression of FAW, Genuity® corn traits can improve grain quality and increase yield potential by providing multiple modes of action for advanced above-ground insect protection. Genuity® VT Double PRO™ and Genuity® VT Triple PRO™ corn provide dual modes of action and Genuity® SmartStax® corn provides triple modes of action against lepidopteran species such as FAW.

If the corn crop doesn’t contain Bt traits that offer protection against FAW, an insecticide application may be considered. However, insecticide use to prevent foliar feeding damage is not typically economical and is only recommended to help protect against yield loss due to ear damage. Insecticides should be applied before FAW larvae burrow deep into the whorl or enter ears of more mature plants. The efficacy of the insecticide may not be effective if the larvae are burrowed in the whorl because the frass (larval waste) can block the FAW feeding tunnel. FAW thresholds for insecticide applications are shown in Table 1.

When applying insecticides, your local area agronomist recommends using ground rigs with high volumes (20-30 gpa), set up to direct the insecticide over the row, instead of broadcast. Due to high water volumes needed for adequate control, aerial application is not recommended.

Table 1. FAW Thresholds for Insecticide Treatment

1. egg masses are found on ≥ 5% of the plants 1,2
   OR
2. 50% of the plants have severe leaf damage 2
   OR
3. 25% of the plants have leaf damage and live larvae are still present 1


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