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KEY POINTS

- Fall armyworm is an occasional pest of corn in the Southern U.S. and Texas
- Fields planted to non-Bt hybrids, as well as late-planted, and late-maturing fields are at greatest risk for injury.
- Feeding typically occurs in whorl-stage corn
- Action threshold for insecticide treatment is 20% of whorl stage plants infested with live larvae.

PEST IMPORTANCE

- Fall armyworm, *Spodoptera frugiperda*, is a minor pest of corn in the United States.
- Economic damage is sporadic from year to year.
- Fields at highest risk from injury are:
 1. Fields planted to non-Bt hybrids without Lepidoptera control
 2. Fields in the Southern U.S. and Texas
 3. Late-planted fields
 4. Late-maturing hybrids

Figure 1. Early-stage fall armyworm larva.



INJURY SYMPTOMS IN WHORL-STAGE CORN

- Early-stage larval feeding:
 - » Causes “window pane” and shot holes in leaves
- Late-stage larval feeding:
 - » Causes elongate, ragged holes (see photo)
 - » May cut leaves in half
 - » Injures developing tassel in VT stage
 - » Plugs whorl with wet, yellowish-brown frass

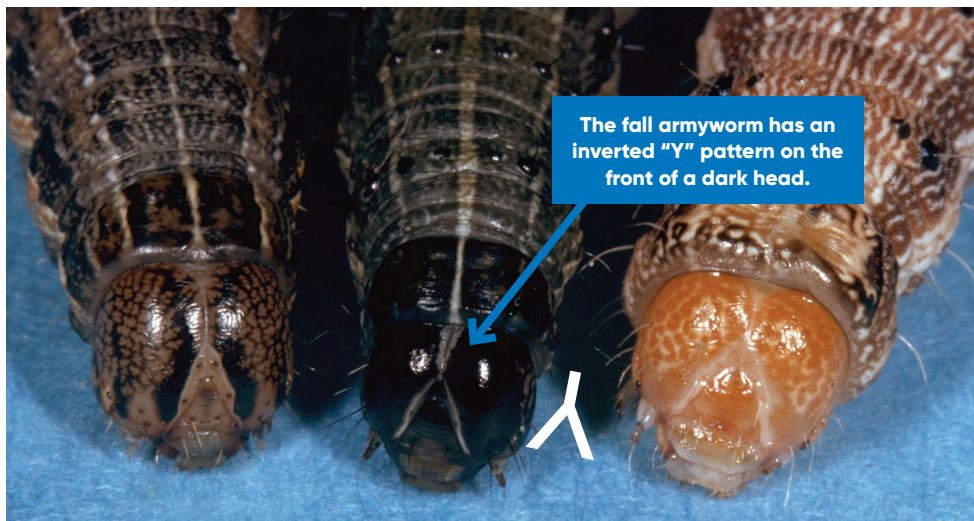
Figure 2. Whorl-stage corn injury from fall armyworm.



SCOUTING FOR FALL ARMYWORM

- Only larvae in whorl-stage corn can be controlled with insecticides; larvae in corn ears are protected
- Scout for larvae in whorl-stage corn:
 1. Select 20 consecutive plants in a row.
 2. Inspect plants for feeding injury.
 3. Confirm identity of pest species as fall armyworm.
 4. Repeat 20-plant sample at four additional locations.
 5. Determine percent infestations based on 100 plants.
 6. Consider insecticide application when 20% of whorl-stage plants are infested with live larvae.

Figure 3. Similar caterpillar species found on corn (left-right): armyworm, fall armyworm and corn earworm



IDENTIFICATION OF FALL ARMYWORM

- Fall armyworms can be distinguished from similar corn caterpillars by two physical characteristics:
 1. Inverted “Y” pattern on the front of a dark head (left and bottom left photos)
 2. Dark spots (tubercles) on dorsal surface arranged in “square” or “trapezoid” pattern (photo below)

Figure 4. Dark spots (tubercles) on dorsal surface arranged in “trapezoid” or when near the tail, in a “square” pattern. Spots are darkened in photo for emphasis.



Figure 5. An inverted “Y” pattern on the front of a dark head identifies the fall armyworm.



REFERENCES

Bessin, Ric. 2003. Fall armyworm in corn. University of Kentucky Cooperative Extension Service. ENTFACT-110.

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