

Marlin E. Rice, Former Senior Research Scientist

## 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.

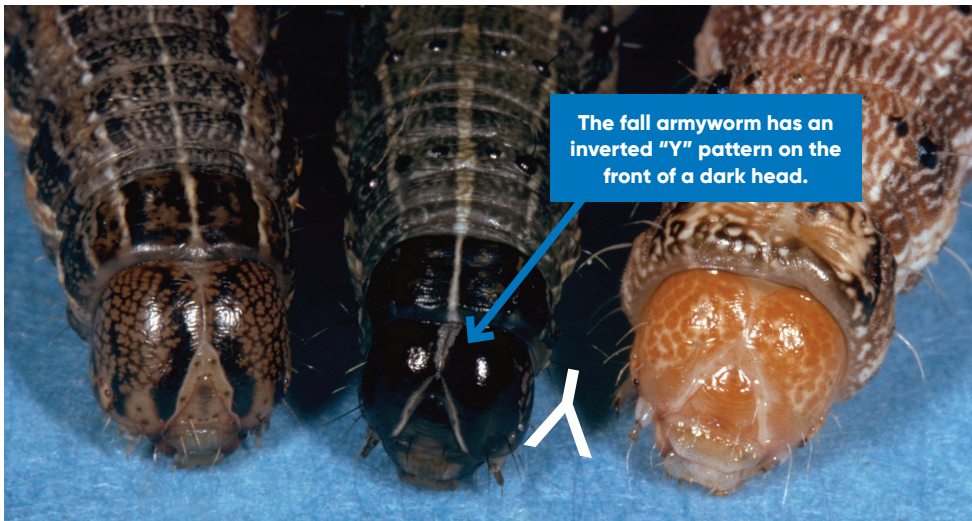


## SCOUTING FOR FALL ARMYWORM

- 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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