

Brown Stink Bug Management in Early Vegetative Stage Field Corn in Mississippi



Figure 1.



Figure 2.

Biology/Ecology

- Brown stink bugs overwinter as adults in protected sites such as crop residues, ditch banks, wooded areas, and other areas.
- They become active in late February and March when temperatures begin to rise.
- These insects will feed on early vegetative stage corn, often hidden under residues or soil cracks (Figure 1).

Brown Stink Bugs in Early Vegetative Stage Corn

- Brown stink bugs will be more concentrated around field edges, especially those edges close to overwintering sites.

- Plant damage symptomatology includes a linear row of holes in leaves (Figure 2), plant stunting (Figure 3), plant tillering (Figure 4), and “dead-heart” or plant death (Figure 5).
- Reductions in yield of individual plants can range from 28.4 to 65.6 percent.
- Damage can occur on plants consecutively in a row or randomly scattered across multiple rows.
- When 10 percent or more of plants are damaged, yield is reduced. However, that rate of plant damage rarely occurs across an entire field.

Scouting

- Begin scouting at the V1 growth stage and monitor weekly through the V6 growth stage.
- Concentrate efforts around field edges and overwintering sites (**Figure 6**).
- A partial plant sampling method (focusing primarily on the base of plants) is the best method to estimate population densities.
- Detecting the presence of stink bugs in seedling corn is difficult, so many samples may be required.

Control

- **Threshold**—Recent research suggests that the greatest yield losses from stink bugs in corn are from infestations that occur from VE to V4.
- Treat corn shorter than 2 feet tall when 10 percent of plants have one or more stink bugs present.

Insecticides, rates, and efficacy ratings from the *Insect Control Guide for Agronomic Crops*.

Foliar insecticide ¹	Amount of formulation per acre	1 gallon or 1 pound dry will treat	Efficacy ²
β-cyfluthrin(P)	1.6 to 2.8 oz	80 to 45.7 acres	6
cyfluthrin (P)	4.6 to 2.8 oz	80 to 45.7 acres	6
bifenthrin (P)	2.1 to 6.4 oz	61 to 20 acres	7
Z-cypermethrin (P)	2.72 to 4.0 oz	32 to 12.4 acres	6

¹For specific products, refer to the current *Insect Control Guide for Agronomic Crops* at <http://extension.msstate.edu/publications/publications/insect-control-guide-for-agronomic-crops>.

²Efficacy is based on a rating scale of 0 to 10, with 0 being no control and 10 being 100 percent control.



Figure 3.



Figure 4.



Figure 5.



Figure 6.

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