

Identification of Cotton Seed Bug – A Potentially Invasive Pest to Arkansas

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The cotton seed bug (*Oxycarenus hyalinipennis*) is considered a tropical pest that is not native to the U.S. However, this pest is at great risk of being introduced via human-assisted means and weather events, and has recently been reported in Florida.

Primary host plants of this pest are in the family Malvaceae, most notably cotton (Dimetry 1971, Raman and Sanjayan 1983). Cotton seed bug is a pest of cotton by feeding on developed seed in exposed lint, well after other insect pests in Arkansas call for treatment.

Cotton seed bug also can be crushed during the ginning process, staining valuable lint. Due to the availability of many host plants within the U.S. and lack of competition from related species, the rating for risk factor is judged to be high. If introduced, cotton seed bug may be able to



Figure 1. Cotton lint infested with cotton seed bugs.

Photograph courtesy of Andrew Derksen, DPI-CAPS, and Karolynne Griffiths, USDA-PPQCAPS

complete four to five generations per year in Arkansas (Holtz 2006).

Adult specimens are oval in shape, tapered toward the anterior (front), rounded on the posterior (end) and are about $\frac{1}{8}$ inch in length. It has been said that the head resembles the head of a rat. This pest can resemble a chinch bug or false chinch bug. The antennae, head and thorax are black. The wings are translucent white, and the antennae have four segments. The dorsal surface is

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Figure 2. Cotton seed bug adult.

Photograph courtesy of C. Mares, CSIRO



Figure 3. Cotton seed bug nymphs on boll bract.

Photograph courtesy of C. Mares, CSIRO

somewhat flat and has a dense cover of hairs. Nymphs have a pink to red abdomen.

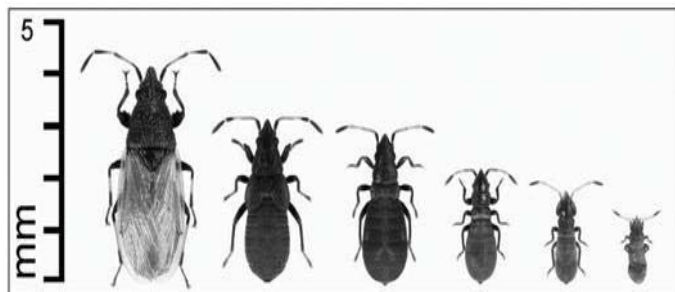


Figure 4. Relative size of cotton seed bug adult (far left) and nymphs. Photo courtesy of Florida Department of Agriculture and Consumer Services, DPI-CAPS

As the name implies, cotton seed bugs are primarily seed feeders and typically do not damage cotton seed until bolls are open (in contrast to stink bugs, which feed prior to boll opening). These bugs are gregarious, sometimes occurring in very large numbers. Both adults and nymphs feed on seeds, sucking oil from mature seeds (Khan and Ahmed 2000). Cotton seeds may appear undamaged on the surface, but feeding can reduce the weight (sometimes up to 15%) and color of the seeds (Henry 1983, Khan and Ahmed 2000). Damage may also significantly affect seed germination or vigor. Cotton seed bug can also feed on leaves and young stem/petiole tissue to obtain



Figure 5. Cotton seed bug adult. Photo courtesy of Michael Thomas, DPI-CAPS

additional moisture. This pest may even infest stored (unginned) cotton and has also been reported to cause considerable economic damage to okra as well as *Hibiscus* (Holtz 2006).

If you find what you suspect may be a cotton seed bug in cotton lint (whether in a field yet to be harvested or in stored lint), contact your local county agent or extension entomologist. Specimens suspected to be cotton seed bug should be collected for identification.

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Figure 6. Cotton seed bug adult. Photo courtesy of Natasha Wright, Florida Department of Agriculture and Consumer Services, Bugwood.org