DENSITY AND DISTRIBUTION OF STINK BUGS (HEMIPTERA: PENTATOMIDAE) IN COTTON, GOSSYPIUM HIRSUTUM, AS INFLUENCED BY SURROUNDING ECOTONES

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Abstract

Stink bugs have become an important economic pest of cotton in the southeastern USA, but relatively little is known about immigration of stink bugs into cotton from nearby crops. A commercial 30-acre cotton field near Blackville, SC, surrounded by a variety of different crops: peanut, corn, cotton, sunflower and soybean, was sampled weekly from the outside field margin at different distances (0m, 5m, 10m, 25m) along predetermined transects from those crops. Insects were sampled with drop cloths, and bolls were monitored for symptoms of internal bug feeding injury. In general, the highest numbers of bugs and boll injury were at 0m then decreased linearly as the distance into the cotton field increased. Peanut was identified to be the most important crop near cotton through association with the highest bug numbers and boll injury in cotton, especially when planted directly adjacent to cotton.