SUMMARY OF STINK BUG EFFICACY TRIALS (2005-2011) IN IRWIN COUNTY GEORGIA P. Edwards University of Georgia Ocilla, GA P. Roberts University of Georgia Tifton, GA

Abstract

Stink bugs are a primary insect pest of Georgia cotton. Excessive stink bug damage negatively impacts both yield and quality. Fourteen replicated trials were conducted from 2005-2011 in Irwin County GA to determine the efficacy of selected insecticides for control of stink bugs in cotton. Trials were conducted in commercial cotton fields planted adjacent to peanut. Plots were arranged so that each plot bordered peanuts since stink bug populations are traditionally higher in cotton nearest the peanut planting compared with more interior areas of fields. Treatments were arranged in a randomized complete block design with four replications. Insecticides were applied with a high clearance plot sprayer calibrated to deliver 10 gpa. Treatments were evaluated with a black drop cloth 3-4 days after treatment. Twelve row feet were sampled in each plot and stink bugs were enumerated by species and life stage. Mean percent control and the coefficient of variation were calculated for neonicotinoids, pyrethroids (low-medium rates and high rates), pyrethroid/neonic premixes, and Bidrin. The number of observations used for calculating means and CVs ranged from seven for neonicotinoid treatments to nineteen for low-medium rates of pyrethroids. High rates of pyrethroids, pyrethroid/neonic premixes, and Bidrin averaged 97, 94, and 97 percent control of southern green stink bug and had lower CVs compared with low-medium rates of pyrethroids and neonicotinoid treatments. The low-medium rates of pyrethroids averaged 86 percent control and the neonicotinoid treatments averaged 70 percent control of southern green stink bug. Bidrin averaged 70 percent control of brown stink bugs and had the lowest CV compared with other insecticide treatments. Percent control of brown stink bugs averaged 20, 33, 40, and 47 percent for neonicotinoids, low-medium rates of pyrethroids, high rates of pyrethroids, and pyrethroid/neonic premixes. In summary, Bidrin provided the best control of mixed populations of southern green and brown stink bugs. Pyrethroids provided good to excellent control of southern green stink bug but only fair control of brown stink bugs. Neonicotinoid insecticides provided better control of southern green stink bugs compared with brown stink bugs.