EARLY-SEASON INSECT CONTROLS: HERBICIDE EFFECTS ON EFFICACY, PLANT DEVELOPMENT AND YIELD IN ROUNDUP READY COTTON Gary L. Lentz and Nancy B. Van Tol West Tennessee Experiment Station The University of Tennessee Jackson, TN

Abstract

The effects of two herbicides, Roundup Ultra (RU) vs. Prowl + Cotoran, on early-season cotton insect control programs were studied in a split plot design at two locations using Roundup Ready cotton. Less thrips damage occurred in the RU main plots at both locations. More early blooms were produced in the RU plots at Milan 60 DAP, but at Jackson, more were produced in the conventional herbicide plots when summed over the 52 and 55 DAP dates. Main plot lint yields were not affected at either location, although 84 and 70 pounds more lint was produced in the RU plots at Jackson and Milan, respectively. Significant differences in subplot means were noted for almost all criteria at both locations. Thrips damage ratings were among the lowest in Gaucho- and Temik-treated plots at both locations. Total bloom counts were highest in the untreated plots at Jackson and lowest in the untreated plots at Milan. Total bloom counts were lowest in Thimet-treated plots at both locations. First harvest, second harvest and total lint yields differed at Milan, but at Jackson, only second harvest lint yields were significantly different. At Milan, Gaucho-, Temik- and Di-Syston-treated plots produced 1053, 1044 and 1006 pounds of lint, respectively. At Jackson, these treatment plots produced 814, 944 and 872 pounds of lint, respectively (P=0.0528).