Managing Caterpillar Pest in Mississippi Peanut

B. L. LIPSEY*, Mississippi State University, Department of Biochemistry, Molecular Biology, Entomology and Plant Pathology, Mississippi State, MS; J. GORE, Mississippi State University, Delta Research and Extension Center, Stoneville, MS; A. L. CATCHOT, Mississippi State University, Department of Biochemistry, Molecular Biology, Entomology and Plant Pathology, Mississippi State, MS; D. R. COOK and J. A. BOND, Mississippi State University, Delta Research and Extension Center, Stoneville, MS; and J. M. SARVER, Mississippi State University, Department of Plant and Soil Science, Mississippi State, MS.

A complex of defoliating caterpillars commonly infest peanut, *Arachis hypogaea* L., in Mississippi and often require management with foliar insecticide applications. To better understand the effects of defoliation on Mississippi peanut yield, experiments were conducted in Stoneville at the Delta Research and Extension Center and Starkville at the R. R. Foil Research Facility at several important peanut growth stages. To achieve defoliation in the early growth stage experiments, manual hand defoliation was necessary. Late growth stage experiments were infested with corn earworm, *Helicoverpa zea* (Boddie) and fall armyworm, *Spodoptera frujiperda* (J. E. Smith). A maximum of 50% defoliation was achieved in these infestation experiments. A significant relationship between defoliation and peanut yield was observed for both the early season and mid-late-season experiments. Based on the regression analyses, 5.66 lbs and 15.3 lbs of peanuts were lost for every 1% defoliation. These results will be important for improving current IPM strategies for defoliating caterpillar pests of peanut.