CONTROL OF COTTON BOLLWORM AND TOBACCO BUDWORM IN COTTON WITH CHEMICAL INSECTICIDES, 1982: A full-season study was conducted at the Plant Science Research Farm of the Mississippi Forestry and Experiment Station, Mississippi State, MS, to determine the efficacy of various insecticides in controlling Heliothis spp. larvae on cotton. Plots were planted on May 20. All treatments were replicated 4 times and arranged in a randomized complete block design. Each plot was 4 rows (3.66 m) x 27.43 m with 2 buffer rows between plots. Insecticides were applied with a boom-type sprayer calibrated to deliver 7.8 gal/acre at 76 psi through 2 TX-4 nozzles/row. Applications were made at ca weekly intervals. Treatments were applied on Jul 14, 23, 29, Aug 5, 11, 17 and 24. All plots were oversprayed for boll weevil suppression on Jul 27, Aug 2, 10, 18, 21, 27, 29, Sep 15 and 29 with 0.25 lb ai/acre Guthion. Insect populations and plant damage were monitored at weekly intervals by making whole plant examinations on a consecutive 1.07 m row length. Yield data were taken on Oct 25, 26 and 27 by mechanically harvesting the 2 center rows of each plot.

Significant differences were generally not detected among treatments in the number of squares, blooms, bolls, boll-weevil damaged squares, Heliothis eggs, larvae or Heliothis damaged bolls. Significant differences were detected in Heliothis damaged squares, Heliothis eggs, larvae or Heliothis damaged bolls. Significant differences were detected in Heliothis damaged squares on 2 scouting dates and in the season average. In addition, significant differences in yield were detected. Only 1 treatment did not result in a significantly higher yield than the untreated check. The synthetic pyrethroids, in general, were the most efficacious in Heliothis spp. control.