COMPARISON OF HELICOVERPA ZEA AND HELIOTHIS VIRESCENS ON FOUR COTTON CULTIVARS

D. B. Shoemaker[1], J. N. Jenkins[2], J. C. McCarty, Jr.[2]
Graduate Research Assistant, Research Geneticist, and Research Agronomist respectively
[1]Mississippi State University and [2]USDA-ARS, Mississippi State, MS

Abstract

A field study was conducted to determine the effects of Cotton Bollworm (CBW), *Helicoverpa zea* Boddie and Tobacco Budworm (TBW), *Heliothis virescens* Fab. on four cultivars of cotton, *Gossypium hirsutum* L., which differed in maturity. Plots were two rows planted in a two planted to one skipped pattern. Detailed scouting data were collected weekly for five weeks beginning at pinhead square. The cultivars were grown in six replications in a randomized complete block experiment with two insect treatments. Treatment I consisted of applying 6-8 first instar larvae of TBW or CBW in cotton plant terminals per row foot each week for four weeks beginning at pinhead square. No insecticides for Heliothine control were applied to these plots. Treatment II consisted of plots of each cultivar which were not infested and which were treated with insecticides to control all pests including Heliothines. TBW caused significantly more damage to each cultivar than CBW. Mean lint yield was reduced 500 lbs. per acre by TBW and 200 lbs. per acre by CBW in 1994. Similar damage results were obtained in the early part of 1995; however, a high natural infestation of TBW and a late season infestation of Beet Armyworm confounded the yield data in 1995. Studies are underway to determine how behavior of TBW and CBW relates to these differences. Preliminary data indicates that CBW tend to web off cotton terminals more readily than TBW when each was applied to plant terminals in water picks in the laboratory. Additional studies are underway.

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