

CONTROL OF TARNISHED PLANT BUG WITH TANKMIXES AND PREMIX INSECTICIDES

**B. C. Thrash
G. M. Lorenz III
J. W. Fortner
N. M. Taillon
C. K. Colwell
W. A. Plummer
R. Goodson**

**University of Arkansas Division of Agriculture
Lonoke Research and Extension Center,
Lonoke, AR**

Abstract

Tarnished plant bug in cotton has become increasingly difficult to control in the Midsouth. Recent studies have shown that single product applications are no longer effective in achieving adequate control under heavy infestations. One way to increase control is by mixing insecticides. Trials were conducted during the 2009, 2010, and 2011 growing season to evaluate the level of control tank mixes and premixes of insecticides provide over single products. Data was compared between tests by converting each treatments season total plant bug numbers to their respective untreated checks to provide a percent control. An average efficacy increase of 16.6% was observed when the selected insecticides were combined with bifenthrin. Tank mixes containing Diamond (novaluron, 6 oz/a) showed an average increase of 17% when compared to a single product not mixed with Diamond. Single products applied at high rates were still not as effective at reducing plant bug numbers as mixes of insecticides at lower rates. Transform provided the best control of any single product but the control it provided did not appear to increase when combined with other insecticides. Overall insecticide mixes provided increased control when compared to their individual compounds. Mixes containing bifenthrin and/or Diamond provided the best control of all observed treatments. Premixes and tank mixes of insecticides are essential in combating tarnished plant bug and preserving existing chemistries.