TARNISHED PLANT BUG MANAGEMENT IN MISSISSIPPI Chris Dobbins, Jeff Gore, Don Cook Mississippi State University, Delta Research and Extension Center Stoneville, MS

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Abstract

The tarnished plant bug, *Lygus lineolaris* (Palisot de Beauvois), is the most important insect pest of cotton in the Mississippi Delta. Although recent research has demonstrated that several cultural practices can be used in an overall IPM program for tarnished plant bug, insecticides remain the most important component for successful management. Insecticide resistance to the standard insecticides has made control difficult for this insect and newer classes of insecticides have become more important in recent years. In particular, the insect growth regulator, novaluron (Diamond), has been an important component of spray strategies. Additionally, the recent registration of sulfoxaflor (Transform) has added another tool for growers. Research was conducted at the Delta Research and Extension Center in Stoneville, MS to investigate the optimum use strategies for these insecticides. For Diamond, applications made immediately prior to first flower provided the best control of tarnished plant bug and resulted in the highest yield. Additionally, Transform provided good control of tarnished plant bug at rates ranging from 1.5 to 2.25 ounces per acre. Based on results from multiple trials, Transform will provide the best control when 1-2 applications are made around first flower with an additional application at peak flower. When used in an overall rotation strategy, both of these insecticides will be an important component of tarnished plant bug IPM in cotton.