COTTON RESPONSE TO HIGH RATES OF PREEMERGENCE-APPLIED ACETOCHLOR AND DIURON ON A CLAY SOIL

Ty C Smith
Jason K Norsworthy
Casey H Arnold
Navdeep Godara
University of Arkansas
Fayetteville, AR
Tom Barber
University of Arkansas-Extension
Lonoke, AR

Abstract

When controlling weed populations and reducing the pressure for herbicide resistance in slow-canopying cotton, preemergence herbicides with residual activity are needed. A reduction in seed cotton yield from competition with prickly sida throughout the year has been shown in previous research. This trial was conducted to evaluate the response of cotton to preemergence applications of acetochlor and diuron on a silty clay soil in 2021 at the Northeast Research and Extension Center in Keiser, Arkansas. Cotton injury was 20% or less over all treatments in this study. Prickly sida was controlled 90% or greater by all treatments, while pitted morningglory control was 90% or greater when high rates of diuron and the combination of acetochlor and diuron were applied. There was no significant stand loss 21 days after treatment was observed for any application of acetochlor, diuron, and the combination of the two at any rate. While injury was observed, with high rates of acetochlor and diuron, it was deemed acceptable, and increased control of pitted morningglory did occur.