A SYSTEMS APPROACH TO WEED MANAGEMENT IN ENLIST COTTON

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Abstract

Palmer amaranth, annual grasses, and morning glories are some of the most troublesome weeds in Midsouth cotton production. With the introduction of Enlist ™ cotton, 2,4-D choline can be used to control these troublesome weeds, including Palmer amaranth and morning glories in Enlist cotton. Enlist One™ and Enlist Duo® utilize the choline formulation of 2,4-D, which is less volatile than other formulations and it includes a drift retardant to make it less prone to injure nearby non-Enlist cotton. A field trail was conducted in 2018 using a program approach to evaluate weed control with Enlist One™ and Enlist Duo® as an early-postemergence (EPOST) or mid-postemergence (MPOST) application. This experiment was located at the Lon Mann Cotton Research Station near Marianna, AR and set up as a randomized complete block design with seven programs and a nontreated control. Visible crop injury and weed control ratings were taken 2 and 4 weeks after each application. No significant injury was observed from any treatment at 2 or 4 weeks after MPOST. Additionally, treatments that utilized a residual herbicide in POST applications controlled Palmer amaranth e92% 2 weeks after the MPOST application. Treatments where Enlist One or Enlist Duo provided e88% control of pitted morning glory 2 weeks after MPOST. Results from this experiment indicate Enlist One and Enlist Duo show utility in a postemergence application as part of an herbicide program and provide a much-needed option for controlling troublesome weeds in Enlist cotton.