

INTERACTION OF HERBICIDES AND ADJUVANTS WITH AE 0172747 ON POSTEMERGENCE GRASS CONTROL. Mark A. Waddington and Bryan G. Young, Graduate Research Assistant and Associate Professor, Southern Illinois University, Carbondale, IL 62901.

The experimental product AE 0172747 is an HPPD-inhibiting herbicide being developed for postemergence grass and broadleaf control in corn. Two field studies were conducted in 2006 at the Southern Illinois University research farms in Belleville and Carbondale to evaluate the efficacy of AE 0172747 applied alone on grass species and in several tank-mixtures of herbicides and adjuvants to determine their influence on grass control.

Control of giant foxtail and broadleaf signalgrass was at least 87 and 91%, respectively, for AE 0172747 applied alone with either crop oil concentrate (COC) or methylated seed oil (MSO). The use of COC, MSO, nicosulfuron, foramsulfuron, or atrazine with AE 0172747 had only a slight impact on control of giant foxtail and broadleaf signalgrass. Conversely, control of fall panicum with AE 0172747 applied alone was less than 8% regardless of adjuvant. Control of fall panicum was 45 to 89% from combinations of foramsulfuron plus AE 0172747 and control generally increased as the rate of foramsulfuron increased. Control of fall panicum was 72 to 96% from combinations of nicosulfuron plus AE 0172747. However, increasing the rate of nicosulfuron beyond 75% of the normal use rate did not usually increase control of fall panicum. In most instances, fall panicum control was greater when MSO was utilized with either foramsulfuron or nicosulfuron tank-mixed with AE 0172747 compared with COC. When the sulfonylurea grass herbicides were applied with AE 0172747 the addition of atrazine provided variable results for control of fall panicum.