

KOCHIA CONTROL WITH SELECTED HERBICIDES IN SOYBEANS. Brandon M. Hulse, Kassim Al-Khatib, Phillip W. Stahlman, Dallas E. Peterson, and Patrick W. Geier, Graduate Research Assistant, Professor, Professor, Professor, and Assistant Scientist, Department of Agronomy, Kansas State University, Manhattan, KS, 66506.

Field experiments were conducted during the summer of 2009 at Hays in northwest Kansas, and near Cimarron in southwest Kansas to evaluate kochia control with selected herbicides in soybeans. Preemergence treatments consisted of flumioxazin at 72 and 108 g ai/ha, flumioxazin + clorimuron ethyl at 415 + 248 g ai/ha, sulfentrazone at 213 and 314 g ai/ha, sulfentrazone + cloransulam-methyl at 34 + 258 g ai/ha, S-metolachlor + fomesafen at 1099+280 g ai/ha, metribuzin + sulfentrazone at 303 + 202 g ai/ha, and metribuzin at 426 g ai/ha, clomazone at 841 g ai/ha, pendimethalin at 1.5 g ai/ha, imazaquin at 140 g ai/ha. In addition, 4 weeks after PRE treatments, glyphosate was POST applied at 841 and 1642 g ai/ha when kochia was 6-8cm tall. Kochia was evaluated 14, 28, 42, 56, and 70 days after treatment (DAT). All herbicide treatments provided greater than 95% control of kochia except flumioxazin 28 DAT. However, at 42 DAT all treatments provided more than 90% kochia control with sulfentrazone and sulfentrazone+cloransulam-methyl providing greatest control. Glyphosate controlled less than 95% of kochia at 56 DAT and less than 65% of kochia at 70 DAT. This research showed that glyphosate applied alone did not provide adequate long season kochia control. Therefore, preemergence herbicide treatment is critical when kochia is present in any field.