

NITROGEN, ADJUVANT, AND APPLICATION TIMING EFFECTS ON IMAZAMOX EFFICACY IN WHEAT. Patrick W. Geier, Phillip W. Stahlman, and John C. Frihauf, Assistant Scientist, Professor, and Assistant Scientist, Kansas State University Agricultural Research Center, Hays, KS 67601.

Field experiments conducted near Hays and Colby, KS in 2002-2003 evaluated the effects of 28% urea-ammonium nitrate (UAN), adjuvants, and application timing on imazamox efficacy in winter wheat. In one experiment, no application timing by herbicide treatment interaction occurred at Hays or Colby, nor was the main effect of herbicide treatment (UAN rate) significant at Hays. Fall-postemergence (fall-POST) treatments were 28 to 37% more efficacious on blue mustard, downy brome, and jointed goatgrass than spring-postemergence (spring-POST) treatments at Hays. Flixweed control was 82% regardless of application timing. At Colby, jointed goatgrass was controlled better with fall-POST treatments compared to spring-POST treatments, though differences between timings decreased as the season progressed. Imazamox controlled jointed goatgrass better early in the season when UAN rates were 5% v/v or more compared to 1% v/v, however no differences were observed later in the season. Yields did not differ between treated and nontreated wheat at Colby. Wheat treated fall-POST or spring-POST at Hays yielded 51 and 28% more grain than nontreated wheat.

In a second experiment, imazamox at 35 or 53 g/ha controlled flixweed and jointed goatgrass 94% or more regardless of adjuvant, rate, or UAN concentration at Hays. Blue mustard and downy brome control was variable (59 to 91%) and no clear trends were evident. Jointed goatgrass control at Colby was 81 to 100%; generally, control was best with imazamox at 53 g/ha, when methylated seed oil was the adjuvant, or when Quad 7 rates exceeded 0.25% v/v. Yields did not differ between treated and nontreated wheat at Colby, however, herbicide-treated wheat at Hays yielded 21 to 34 bu/A more than nontreated wheat.