

A12854 APPLIED POSTEMERGENCE WITH ADJUVANTS. Richard K. Zollinger and Jerry L. Ries, Associate Professor and Research Specialist, Department of Plant Sciences, North Dakota State University, Fargo, ND 58105.

Studies were conducted in the field to determine kochia and yellow foxtail control from A12854 (premix of mesotrione, s-metolachlor, and atrazine) applied POST. A12854 at 0.1+1+0.38 lb/A with or without petroleum oil adjuvant and nitrogen fertilizer gave 95% control of 3 to 4 inch kochia. Nicosulfuron&rim sulfuron (nic&rim) at 0.38 or 0.56 oz/A applied with A12854 at 0.1+1+0.38 lb/A plus petroleum oil + nitrogen gave at least 92% control of 2 to 4 inch yellow foxtail. However, when applied to 3 to 6 inch yellow foxtail, only the higher nic&rim rate with A12854 gave 92% control. A12854 + petroleum oil + nitrogen gave greater yellow foxtail control at any rate used compared to mesotrione + atrazine + petroleum oil + nitrogen applied together at comparable rates. Nic&rim at 0.28 oz/A applied with A12854 at 0.13+1.3+0.5 lb/A plus petroleum oil + nitrogen completely controlled 3 to 6 inch yellow foxtail. Maintaining the nic&rim rate but reducing A12854 rate reduced yellow foxtail control to less than 75%. Nic&rim at 0.28 + A12854 at 0.07+0.67+0.25 lb/A applied with several nonionic surfactant, basic pH blend, petroleum oil adjuvants did not give adequate yellow foxtail control. Using MSO or MSO&basic pH blend (Renegade) adjuvants increased yellow foxtail control to at least 88%. Fornsulfuron at 1.05, 0.88 or 0.7 oz/A + A12854 at 0.1+1+0.38 lb/A did not provide greater than 65% control.