

SCOURINGRUSH CONTROL WITH HERBICIDES. Kirk A. Howatt, Associate Professor, Department of Plant Sciences, North Dakota State University, Fargo, ND 58105-5051.

Questions regarding the control of *Equisetum* spp. are resulting from the encroachment and invasion of crop and rangeland by field horsetail and scouringrush in the Dakotas, Minnesota, and Montana. An experiment was established twice near Britton, South Dakota, to evaluate the efficacy of individual active ingredients to control an infestation of scouringrush in cropland. Seven auxinic herbicides and six ALS-inhibiting herbicides were applied in June. Four of the auxinic herbicides and two of the ALS-inhibitors also were applied to separate plots in October. Triclopyr at 24 oz ae/A applied in June provided 86% control in July and maintained 86% control in October. MCPA at 16 oz ae/A and imazapic at 3 oz ae/A provided less control, near 70%, than triclopyr, but the remaining treatments gave less than 57% control in October. The effect of each herbicide applied in June dissipated by the next season and did not affect the number of stems 12 months after application. Each herbicide applied in the fall provided greater than 80% control the following June, with triclopyr providing the best control at 98%. Activity of triclopyr persisted through the summer and was 95% visible control with 94% fewer stems 12 months after application compared with the control. Activity of fall-applied MCPA or metsulfuron at 0.6 oz ai/A 12 months after application varied between the years, while other herbicides gave less than 20% control. Triclopyr provided control of scouringrush for a full season regardless of June or October application. However, considering soil residuals and expenses of products, MCPA may be the best option for controlling scouringrush in cropland.