

WEED CONTROL AND ERADICATION STUDIES IN *MISCANTHUS X GIGANTEUS*.
Eric K. Anderson, Aaron G. Hager, Thomas B. Voigt and Germán A. Bollero, Graduate Research Assistant, Department of Crops Sciences, Assistant Professor, Department of Crop Sciences, Associate Professor, Department of Natural Resources and Environmental Studies, and Professor, Department of Crop Sciences, University of Illinois at Urbana-Champaign, Urbana, IL 61801.

The establishment of a crop of *Miscanthus x giganteus* (Mxg) is a costly investment, and to a great extent its success depends on controlling weed populations during this phase. Since there are no significant Mxg plantings in the U.S. to date, the limited work that has been done on weed control with the crop comes from the European Union. Current research at the University of Illinois at Urbana-Champaign (UIUC) focuses on the phytotoxic effects of a wide range of herbicide families on Mxg. Greenhouse experiments were conducted during 2007 and 2008. Initial results confirm and expand upon earlier research, indicating that there are several herbicides with different modes of action that could be used on Mxg with no or minimal herbicide injury or yield loss. The results also identify a few chemistries that are injurious to Mxg.

A second aspect of the research being conducted at UIUC is the eradication of a crop of Mxg. Although it is doubtful that this plant would become an invasive weed, it is nonetheless necessary to identify methods of eradicating the crop should the need arise. An experiment incorporating glyphosate applications with and without tillage was conducted in 2008 on a 4 year old stand of Mxg. Initial results suggest that glyphosate applications at various timings in conjunction with tillage may provide an adequate means of eradication.