TOLERANCE OF SWITCHGRASS TO PRE- AND POSTEMERGENCE HERBICIDES. Wesley J. Everman*, Calvin F. Glaspie, Demitria Gavit, Jan Michael, and Donald Penner. Michigan State University, East Lansing., Assistant Professor, Graduate Research Assistant, Field Research Assistant, Research Technician and Professor, Department of Crop and Soil Sciences, Michigan State University, East Lansing, MI 48824-1325.

The increased interest in using native grasses such as switchgrass (*Panicum virgatum*) as a renewable energy source for cellulosic ethanol production raises several questions about best production practices. Currently no herbicides are labeled for use in switchgrass production; however weed control products need to be evaluated for potential use as production practices develop. Studies were established in 2008 and 2009 at Michigan State University in East Lansing, MI to determine the effect of pre- and postemergence herbicides on switchgrass growth and biomass. Switchgrass varieties 'Alamo' and 'Cave-in-Rock' were evaluated utilizing a randomized complete block arrangement of treatments. Pre- and postemergence herbicides were chosen based upon grass crop tolerance. Crop injury, height and stage measurements were taken weekly following herbicide application. Varieties showed few differences in injury response to herbicides, however growth differences were observed at the end of the study. Atrazine and quinclorac treatments resulted in the least injury, with all other preemergence herbicides causing significant injury. Several postemergence herbicides, primarily growth regulator and photosystem inhibitors, were safe on switchgrass. Injury from postemergence herbicides was greatest with ALS and HPPD inhibiting herbicides.

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