

VEGETATION CONTROL WITH LIME, SODIUM CARBONATE (ASH), AND IMAZAPYR ON SANDBARS ALONG MISSOURI RIVER. Stevan Z. Knezevic, Avishek Datta*, Charles Shapiro, Jon Scott, and Mike Mainz Associate Professor, Post Doc, Professor, and Technologists. Haskell Agricultural Laboratory, University of Nebraska, Concord, NE, 68728

Lack of bare sandbars due to vegetative overgrowth is the main reason for the reduction of nesting habitats for two endangered bird species, Piping Plovers (*Charadrius melodus*) and Interior Least Terns (*Sterna antillarum*). In an effort to create suitable nesting habitats (e.g. open bare sand areas), a series of vegetation management practices are being tested on existing sandbars along the Missouri River. Field studies were initiated on two existing sandbars in 2007 and 2008 by Springfield, SD with the objective to test vegetation control as influenced by liming, ash, imazapyr, and their interactions. The sites were treated with 3 quarts of glyphosate to control existing vegetation prior to the experiment initiation. The experimental design was a split plot with 18 treatments replicated 4 times. The main plot was soil amendment (lime or sodium carbonate surface applied) each at 3 rates (0, 3, and 6 t/ha) and the sub-plot of imazapyr (0, 0.56, and 1.58 kg/ha). The dominant weed species of the sandbars were nutsedge, waterhemp, sweet clover, common ragweed, horsetail, and maretail. Best overall vegetation control was achieved with imazapyr applied alone at 1.68 t/ha, or following application of lime at 3 t/ha, which provided more than 70% control of most weed species one year after application. Lime or ash applied alone, or a combination of ash and imazapyr did not provide adequate weed control.