

INTEGRATED MANAGEMENT OF *PHRAGMITES AUSTRALIS* (COMMON REED) ALONG THE PLATTE RIVER. Ryan E. Rapp\* and Stevan Z. Knezevic, Graduate Student and Associate Professor, Department of Agronomy and Horticulture, University of Nebraska, Concord, NE 68728.

*Phragmites* (*Phragmites sp.*), also known as common reed, is a major problem weed occurring in the Nebraska's wetlands. The native (*Phragmites australis* subsp. *americanus*) and non-native (*Phragmites australis* subsp. *australis*) can be found along the Platte river from Wyoming to eastern Nebraska and expanding. Therefore a series of 12 experiments were initiated at 3 locations in 2008 with the objective to determine integrated approach for managing *Phragmites australis* along the Platte River based on herbicides, mowing and disking. Each experiment was arranged in a randomized complete block design with 3 replications. Visual ratings were done to determine level of control. ANOVA of plant growth responses to the control methods was performed using PROC GLM to test data normality and significance ( $P < 0.05$ ) of the year, location, and replication. Treatment differences were based on an LSD test. *Phragmites* control was highest utilizing herbicide in combination with mechanical treatment of either mowing or disking. Herbicide alone provided higher control than disking alone or mowing alone. Mowing treatments combined with herbicide (120 DAT) were significantly better than mowing alone. Mowing alone provided short term control with almost immediate regrowth of *Phragmites*. Disking alone provided higher control than mowing alone resulting in lower plant populations (30 DAT). Treatments with herbicide and either mechanical treatment have provided a high level of control (>90%). All herbicide alone or combination with mechanical methods had control ratings 90% or higher. rapp@huskers.unl.edu