

DOSE RESPONSE CURVES FOR KIH-485 IRRIGATED CORN WITH HERBICIDES. Stevan Z. Knezevic, Jon E. Scott* and Peter Porpiglia, Haskell Ag. Lab., University of Nebraska, Concord, NE, 68728-2828, and Kumia America, White plains, New York.

KIH-485 is a new herbicide under development. Four field studies were conducted in 2006 at Brunswick and Concord to describe and compare dose response curves for KIH-485 at four soil types (eg. 1%OM, 2%, 3%, and 4% OM) for control of green foxtail, field sandbur, large crabgrass, velvetleaf and tall waterhemp. Dose response curves were fit, and ED90 values (effective dose that provides 90% weed control) were determined utilizing the **R** and *drc* software package. Generally, an increase in OM resulted in higher ED90 values for all weed species. For example, the ED90 (90% control) for green foxtail was 115 g ai/ha for soils with 1% OM, while 300 g ai/ha was calculated for soils with 3% OM. Similar response was observed for other weed species. The proposed label rate for KIH might be between 200-250 g ai /ha, which would provide excellent control of most weed species for at least first four weeks of the growing season on soils up to 3% OM. For example, at 28 DAT field sandbur was controlled with 228 g ai/ha on soils with 1% OM, green foxtail with 115g and 121g ai/ha on soils with 1% and 2% OM, as well as velvetleaf and tall waterhemp on soils with 3% OM with 189 g ai/ha and 240 g ai/ha. Most soils in Nebraska contain no more than 3% OM, thus the KIH has a good potential for PRE use in corn as it provided excellent early season control of our major weed species (sknezevic2@unl.edu).