

GLYPHOSATE DOSE RESPONSE CURVES AND SELECTIVITY FOR CONTROL OF PROBLEM WEEDS IN ROUNDUP-READY SOYBEAN. Stevan Z. Knezevic and Robert N. Klein, Haskell Ag. Lab., University of Nebraska, Concord, NE, 68728-2828 and West Central Station, University of Nebraska, North Platte.

Widespread and repeated use of glyphosate is likely a reason for a shift in weed species across many Nebraska fields from those easily controlled by glyphosate to those more tolerant to this herbicide. Current problem weeds include: ivyleaf morningglory, wild buckwheat, Venice mallow, yellow sweetclover, field bindweed, waterhemp, kochia, and Russian thistle. Objective of this field study was to describe a dose response curve based on three application times and seven glyphosate rates for control of problem weeds, at two university of Nebraska research stations (Concord and North Platte). Glyphosate rates were arranged in stepwise increments from 1/5X to 4X of the label rate (1X-rate). Preliminary data suggested that most weeds up to 10cm tall were controlled well with the label rate of glyphosate (1X rate) except morning glory and sweet clover. Taller weeds required from 1.5-4X rate. About 1.5-2X rate was needed to control 10-20 cm tall wild buckwheat, Venice mallow, velvetleaf, waterhemp, sweet clover, ivyleaf mornigglory and bindweed. About 3-4X rate was needed to control 30-40 cm tall ivyleaf morningglory and sweetclover. A tank-mix of glyphosate with other herbicides will be needed to control such species (sknezevic2@unl.edu).